CLASSIFICATION
Changed to
UNCLASSIFIED

097.3
Z 1092
#789

OFFICE OF STRATEGIC SERVICES

Research and Analysis Branch

097.3
Z 1092
no. 789

DEPARTMENT OF STATE
REFERENCE DIVISION
COPY
PLEASE RETURN
REF

CLASSIFICATION
Changed to
UNRESTRICTED
by authority of
J.C. Satterthwaite, DEN
By E L Bank
Date Oct. 23 1946

SURVEY OF WESTERN INDIA

R & A #789

February 1, 1943

Copy No. 36

(11053)

DECLASSIFIED: Unless specifically marked, reports dated through 1945

[redacted]

TABLE OF CONTENTS

		Page
SECTION III - POPULATION AND SOCIAL CONDITIONS		
15.	General	1
16.	Population	10
17.	Ethnic and Social Groups	14
18.	Language	37
19.	Characteristics of the People	40
20.	Living Conditions	43
21.	Labor	54
23.	Education	66
24.	Religion	71
25.	Public Order and Police	73
26.	Press, Propaganda and Censorship	76
SECTION IV - POLITICAL		
27.	General	87
28.	Government	89
29.	Political Parties	100
30.	Foreign Policy and International Relations	104
SECTION V - ECONOMIC		
31.	General	106
32.	Manufacturing	122
33.	Utilities	160
34.	Railroads	169
35.	Roads	178
36.	Shipping	185
37.	Commercial Aviation	207
38.	Commerce	216
39.	Communications	230
40.	Finance	231

CLASSIFICATION
Changed to
UNCLASSIFIED
by authority of
J.C. Satterthwaite DRN
By HT
Date 9/29/50

DECLASSIFIED: Unless specifically marked, reports dated through 1945

[redacted]

CLASSIFICATION
Changed to
UNCLASSIFIED

MAPS

Port of Bombay

Telephone Map of India

Traffic Map of the Main Telegraph Circuits

DECLASSIFIED: Unless specifically marked, reports dated through 1945

CLASSIFICATION
Changed to
UNCLASSIFIED

ROAD MILEAGES OF INDIAN STATES—
Western India Including The Deccan and Gujarat

Name of Authority.	EARTH ROADS (Natural Soil)		GRAVEL, Moorum, Sand, Clay, etc.	MACADAM UNSURFACED		MACADAM surfaced with bituminous products.	ASPHALT & TAR MACADAM Asphaltic & Tar Concrete & Sheet Asphalt.	ROADS of other types.	TOTAL.
	Unmotorable	Motorable in fair weather.		Kanker, Laterite or Brick Metal	Stone Metal				
	M. Yds.	M. Yds.	M. Yds.	M. Yds.	M. Yds.	M. Yds.	M. Yds.	M. Yds.	M. Yds.
Akalkot State	58-00	15-00	..	..	56-00	..	..	..	129-00
Aundh	241-880	46-00	..	20-880	14-00	..	..	..	322-00
Balasinor	160-00	60-00	3-00	..	..	..	..	..	223-00
Baroda	..	61-880	2-00	..	33-00	1-880	..	..	98-00
Baria	..	91-00	3-00	..	88-00	..	..	..	182-00
Baroda (P. W. D.	260-220	522-1148	368-440	56-432	79-1335	..	13-1074	..	1300-1129
Baroda (Under Local Bodies	25-1109	128-1320	..	..	334-101	..	..	1-880 (Cretwar)	489-1650
Bhavnagar State	..	83-00	101-00	..	148-00	..	8-00	..	340-00
Bhor	195-00	..	..	..	94-00	..	..	..	289-00
Cambay	15-880	4-880	..	21-00	17-440	1-00	..	..	59-440
Chhota Udepur	..	136-00	..	..	34-00	3-00	..	..	173-00
Cutch	..	7-00	..	..	243-00	..	..	..	250-00
Dharampur	..	140-00	..	..	45-00	..	..	..	185-00
Dharangadhra	1187-264	460-1320	..	..	16-00	..	..	..	1663-1584
Gondal	..	..	..	..	330*	..	..	..	330-00*
Idar	..	334-00	36-00	..	..	..	..	..	370-00
Jambughoda	..	..	45-00	..	15-00	..	..	..	60-00
Jamkhandi	..	..	76-220	..	59-1100	..	..	..	135-1320
Janjira	3-00	27-00	48-00	13-00	31-00	..	..	..	122-00
Jath	194-00	110-00	23-00	..	14-00	..	..	..	341-00
Jawhar	..	..	..	..	52-00	..	..	..	52-00
Junagadh	76-00	..	11-00	..	211-00	..	..	..	298-00
Kolhapur State	180-00	40-00	160-00	290-00	255-00	..	15-00	..	940-00
Kurundwad Junior	21-440	14-00	2-00	..	2-990	..	..	..	39-1430
Kurundwad Senior	110-00	25-00	..	3-00	15-00	..	..	..	153-00
Khairpur State	534-00	266-00	..	..	8-00	..	..	..	808-00
Miraj (Junior)	..	38-990	38-990	..	..	..	..	..	77-220
Miraj Senior	..	122-1320	60-1100	31-880	30-1100	..	..	..	245-880
Morvi State	..	330-00	..	..	26-00	..	..	..	356-00
Mudhol State	..	..	47-00	..	62-00	..	..	..	109-00
Nawanagar	..	54-00	..	..	150-00	87-00	5-00	..	296-00
Palitana	..	379-00	..	72-880	..	..	..	..	451-880
Phaltan	..	..	57-00	..	32-00	..	..	..	89-00
Porbandar	..	68-00	17-00	..	95-00	..	..	..	180-00
Radhanpur	..	41-00	4-00	..	..	..	..	..	45-00
Rajkot	30-00	30-00	18-00	..	82-00	5-00	..	..	165-00
Rajpipla	1000-00	400-00	..	..	85-880	..	..	..	1485-880
Ramdurg	4-00	..	28-220	..	..	..	..	..	32-220
Sachin	..	..	..	(Information not available)		..	..	..	..
Sangli	..	487-00	115-880	..	98-00	..	..	..	700-880
Savanur	105-830	7-1232	..	..	15-22	..	..	..	128-324
Savantwadi	66-00	235-00	2-00	53-00	114-00	..	..	..	470-00
Vijaynagar	..	..	..	..	84-00	..	..	..	84-00
Wadhwan	..	..	..	..	15-00	..	..	..	15-00

*Sic in text.

(From Government of India Reports)

DECLASSIFIED: Unless specifically marked

Due to its large size, the following document has been filmed in segments. The order of the segments is as follows: left to right, top to bottom.

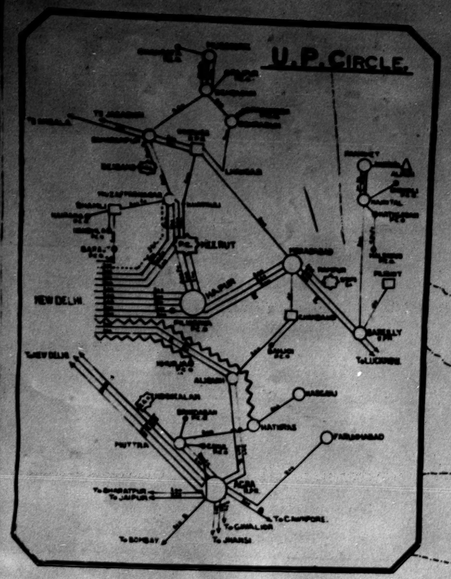
DECLASSIFIED: Unless specifically marked, reports dated three

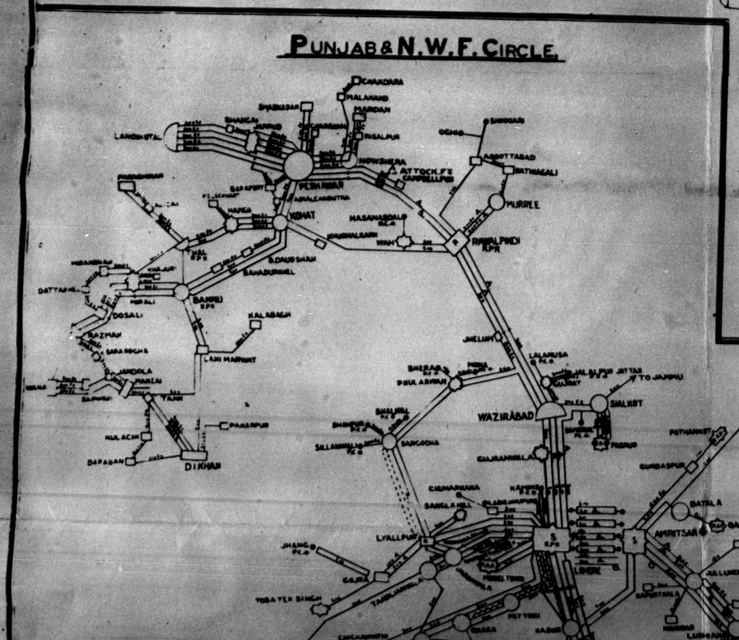
TELEPHONE MAP OF INDIA

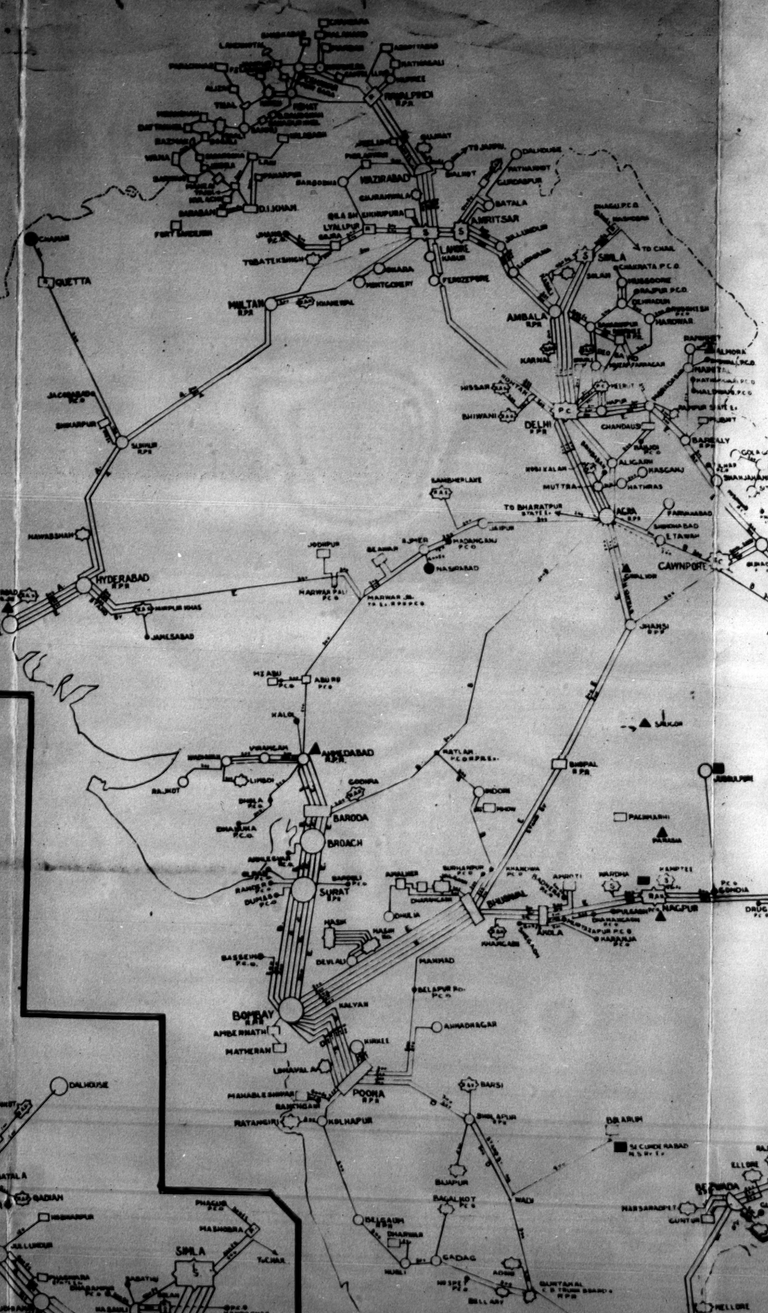
INCLUDING

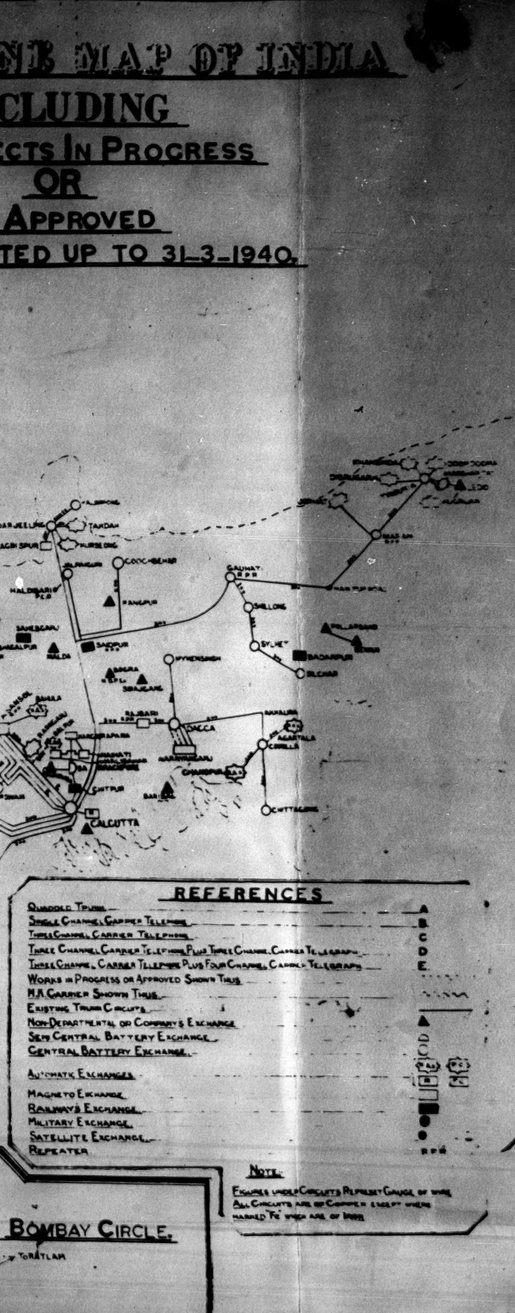
PROJECTS IN PROGRESS OR APPROVED

CORRECTED UP TO 31-3-1940.









REFERENCES

Quadded Trunk	
Single Channel Carrier Telephone	
Three Channel Carrier Telephone	
Three Channel Carrier Telephone Plus Three Channel Carrier Telegraph	
Three Channel Carrier Telephone Plus Four Channel Carrier Telegraph	
Works in Progress or Approved Shown Thus	
H.A. Carrier Shown Thus	
Existing Trunk Circuits	
Non-Departmental or Company's Exchange	
Semi Central Battery Exchange	
Central Battery Exchange	
Automatic Exchanges	
Magneto Exchange	
Railway's Exchange	
Military Exchange	
Satellite Exchange	
Repeater	

A B C D E

Note.

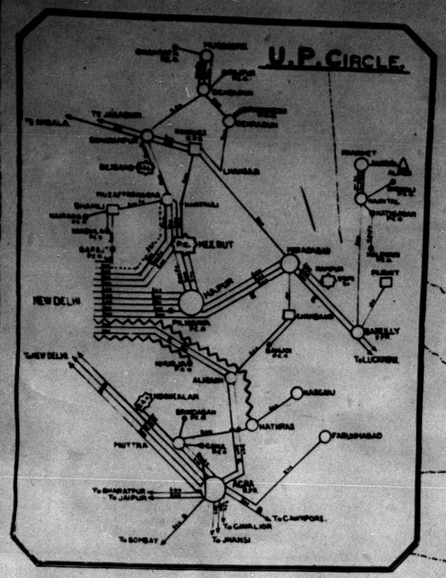
Existing under Circuits Represent Gauge of Wire.
All Circuits are of Copper except where marked Fe which are of Iron.

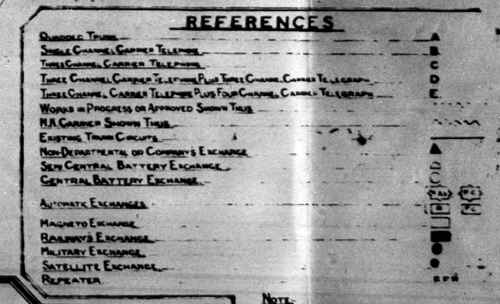
TELEPHONE MAP OF INDIA

INCLUDING

PROJECTS IN PROGRESS OR APPROVED

CORRECTED UP TO 31-3-1940.





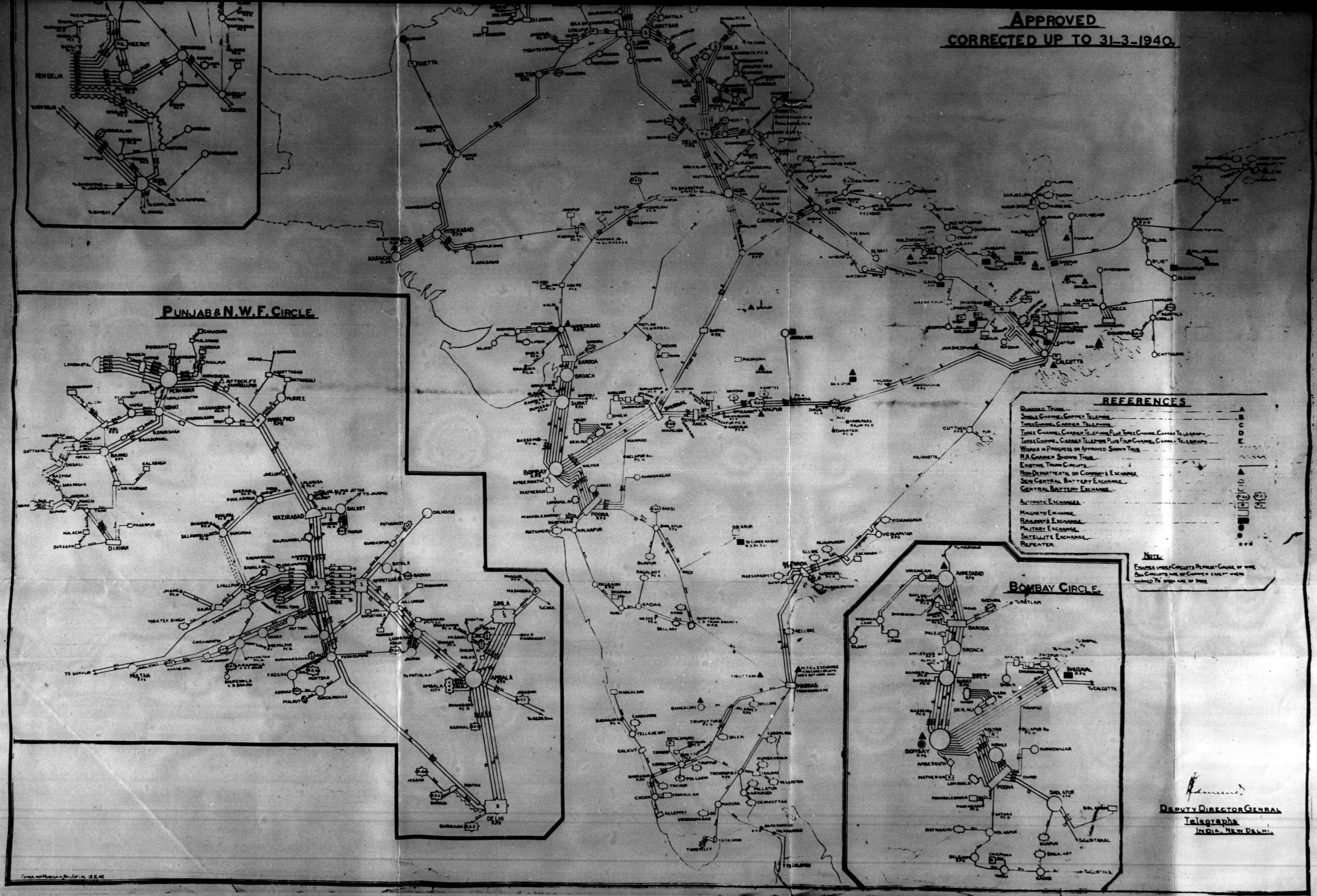
REFERENCES

- Quadruple Trunks
- Single Channel Carrier Telephone
- Three Channel Carrier Telephone
- Three Channel Carrier Telephone Plus Three Channel Carrier Telegraph
- Three Channel Carrier Telephone Plus Four Channel Carrier Telegraph
- Works in Progress or Approved Shown Thus
- H.R. Carrier Shown Thus
- Existing Trunk Circuits
- Non-Departmental or Company's Exchange
- Semi Central Battery Exchange
- Central Battery Exchange
- Automatic Exchanges
- Magneto Exchange
- Railway's Exchange
- Military Exchange
- Satellite Exchange
- Repeater

A B C D E

Note.

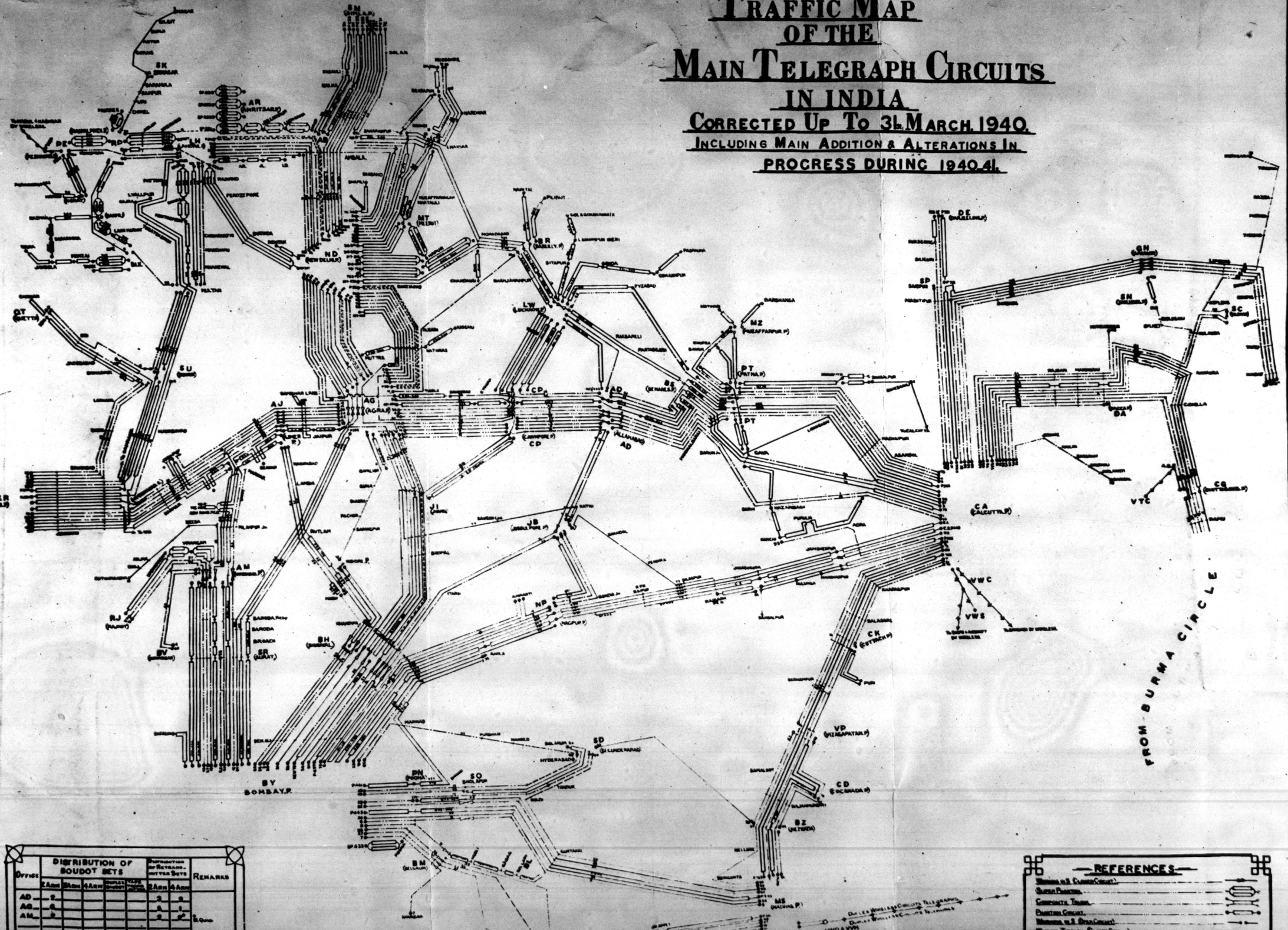
Figures under Circuits Represent Gauge of Wire.
All Circuits are of Copper except where marked 'Fe' which are of Iron.


APPROVED
CORRECTED UP TO 31-3-1940.
PUNJAB & N.W.F. CIRCLE.
BOMBAY CIRCLE.
REFERENCES
Quadded Trunk
Single Channel Carrier Telephone
Three Channel Carrier Telephone
Three Channel Carrier Telephone Plus Three Channel Carrier Telegraph
Three Channel Carrier Telephone Plus Four Channel Carrier Telegraph
Works in Progress or Approved Shown Thus
H.R. Carrier Shown Thus
Existing Trunk Circuits
Non-Departmental or Company's Exchange
Semi Central Battery Exchange
Central Battery Exchange
Automatic Exchanges
Magneto Exchange
Railway's Exchange
Military Exchange
Satellite Exchange
Repeater
Note:
Figures under Circuits Represent Gauge of wire
All Circuits are of Copper except where marked 'Fe' which are of Iron
Deputy Director Genral
Telegraphs
India, New Delhi.

TRAFFIC MAP
OF THE
MAIN TELEGRAPH CIRCUITS
IN INDIA

CORRECTED UP TO 31st MARCH 1940.

INCLUDING MAIN ADDITION & ALTERATIONS IN PROCRESS DURING 1940-41.



OFFICE	DISTRIBUTION OF BOUDOT SETS					Distribution of Retarding Duplex Sets		REMARKS
	2 Arm	3 Arm	4 Arm	Duplex Boudot	Type Printing	2 Arm	4 Arm	
AD	2					2	2	
AG	2					2	1	
AM	2					2	2*	2 Quad
BG	1							

REFERENCES

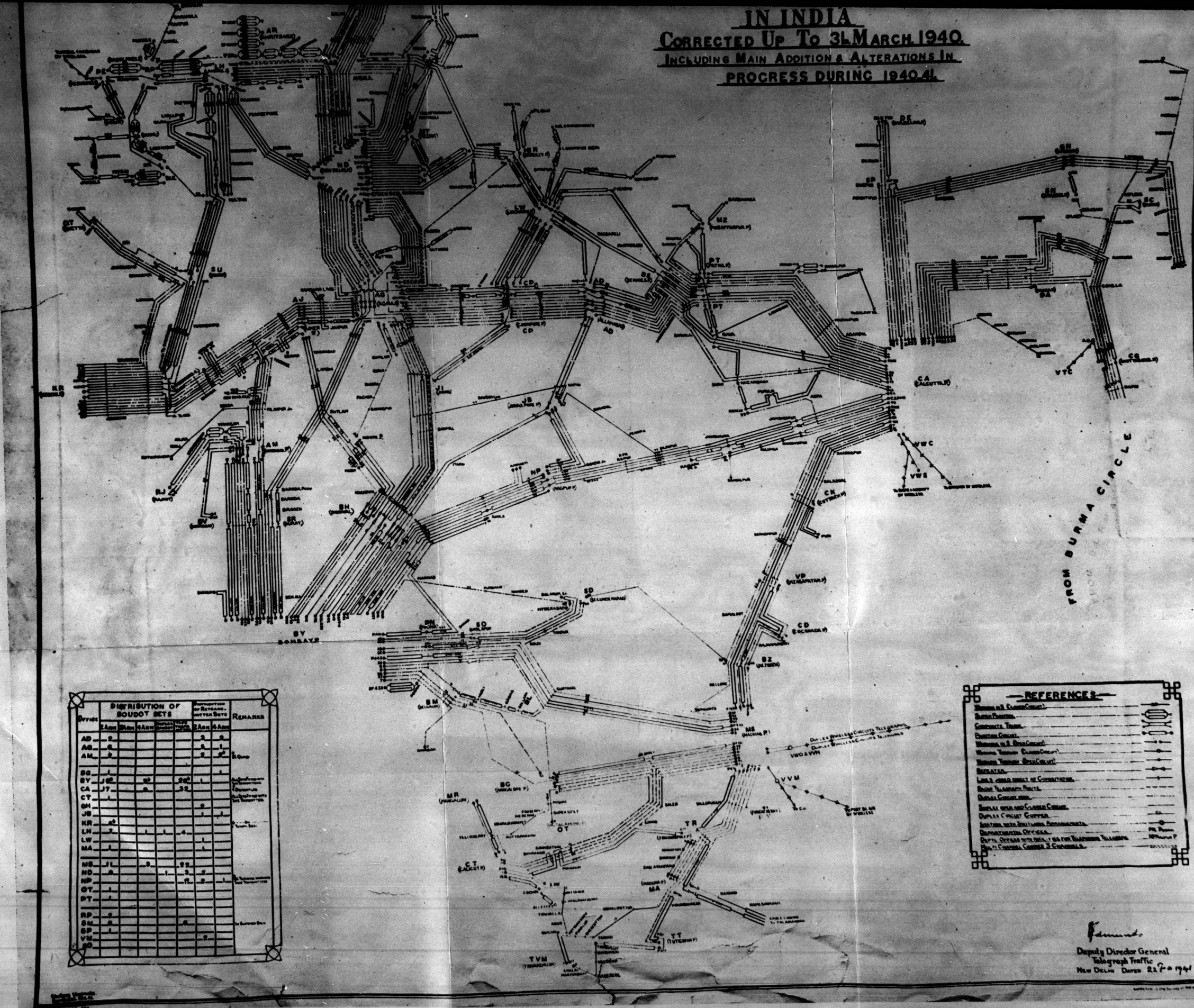
- Wireless on 2 Flanked Circuits
- Super Printing
- Composite Trunk
- Printing Circuits
- Wireless on 2 Spare Circuits
- Wireless Telegraph (Closed Circuit)

DECLASSIFIED: Unless specifically marked

IN INDIA

CORRECTED UP TO 31st MARCH 1940.

INCLUDING MAIN ADDITIONS & ALTERATIONS IN PROGRESS DURING 1940-41.



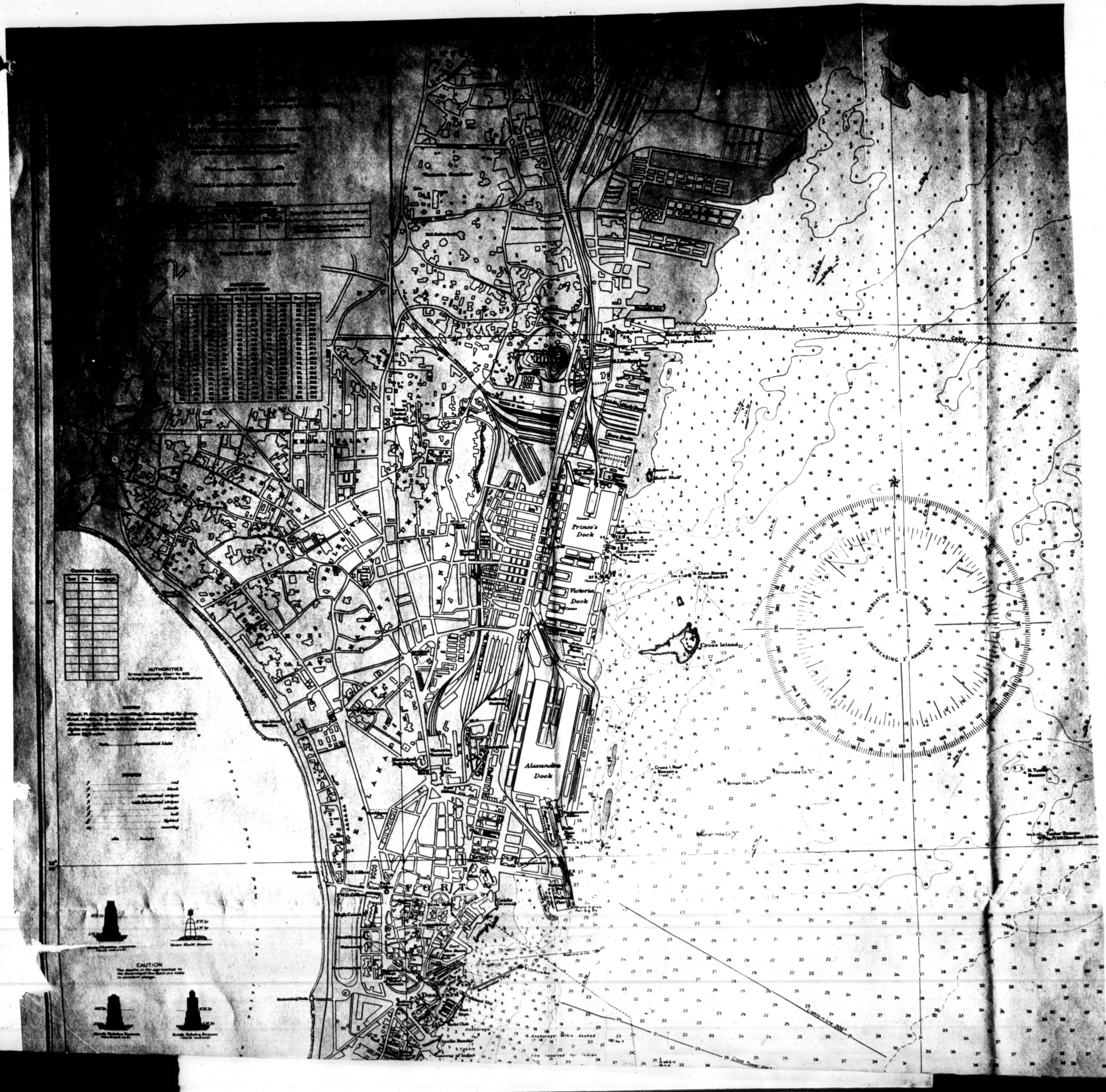
OFFICE	DISTRIBUTION OF BOUDOT SETS 2 ARM	3 ARM	4 ARM	DISTRIBUTION OF RETARD-ATION SETS 2 ARM	4 ARM	REMARKS
AD	2				2	2	
AG	2				2	1	
AM	2				2	2	
BG	1					1	
BY	52		22	22	1		
CA	37		2	32			
CT	1						
GH					2		
JB					1	1	
KR	2						
LN	2		1	1	4		
LW	1					1	
MA	1					1	
MS	11		3	22			
ND	2			1	3	2	
NP	1				12	2	1
OT	1						
PT	1						
RP	2						
SM	2				2		
SP	1						
VM					2		
SD							

REFERENCES

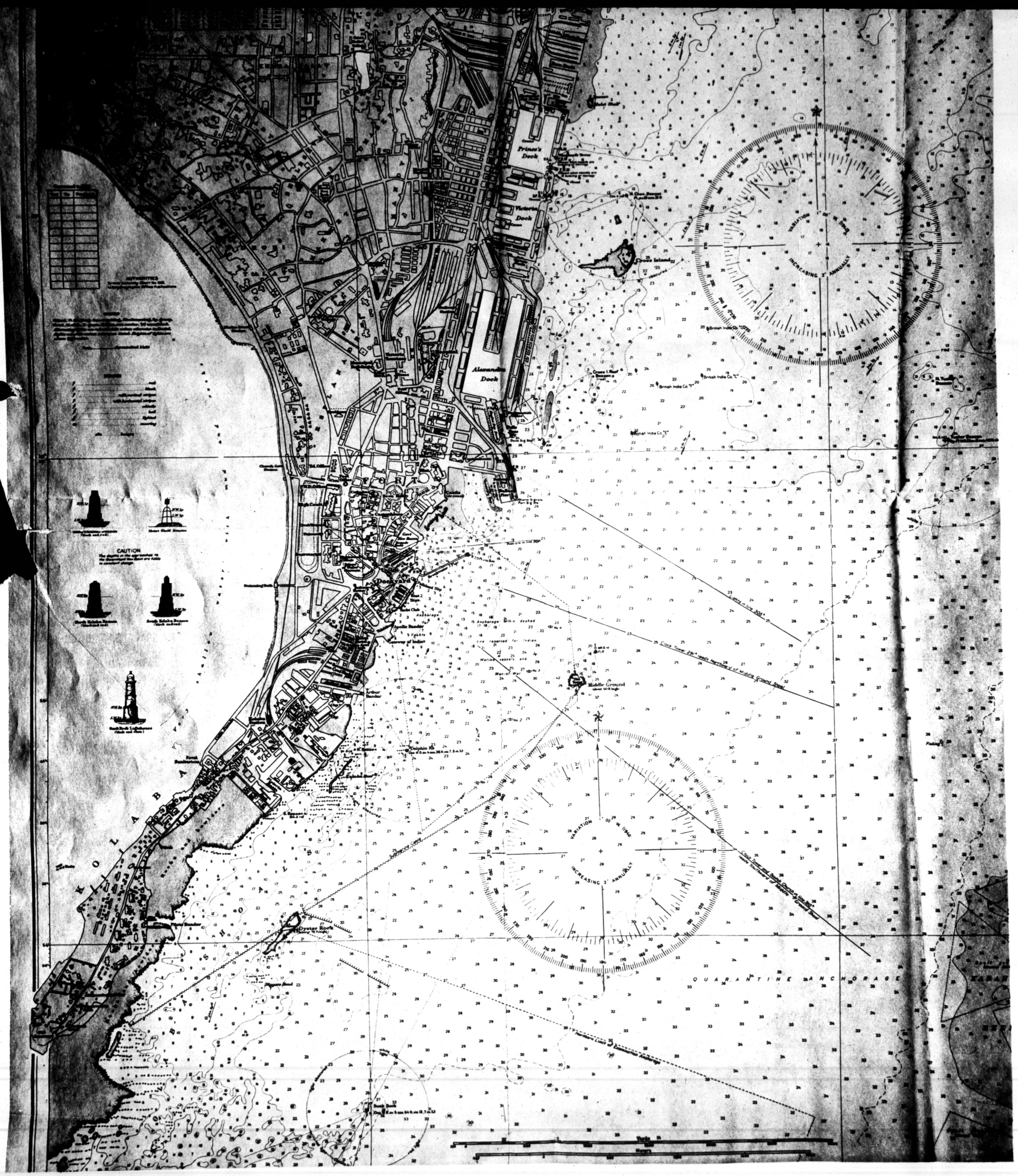
- Wireless on S. Flanders Circuit
- Super Phantom
- Composite Trunk
- Phantom Circuit
- Wireless on S. Bank Circuit
- Wireless Terminal (Closed Circuit)
- Wireless Terminal (Open Circuit)
- Repeater
- Lines worked direct by Commutator
- Morse Telegraph Printer
- Duplex Circuit worked
- Simplex Metal and Combined Circuit
- Duplex Circuit Clipped
- Station with Switching Arrangements
- Administration Offices
- Depot Officer with Facility for Telephone Telegraph
- Main Circuit Carried by Cable

Deputy Director General
Telegraph Traffic
New Delhi Dated 22nd Jan 1941

DECLASSIFIED: Unless specifically marked



DECLASSIFIED: Unless specifically marked, reports dated through 1945 were declassified in



Prince's Dock
Victoria Dock
Alexandra Dock
Cross Island
Middle Ground
Dolphin Rk
Oyster Rock
Sunk Rock
Dockyard
Apollo Bander
Arthur Bander
Clock Tower 291° leads Northward of Middle Ground Shoal
Lights in line 305°
Clock Tower and Sunk Church in line 300° leads Southward of Middle Ground Shoal
Northern Limit of Examination Anchorage
QUARANTINE ANCHORAGE
KOLABA
CAUTION
VARIATION
INCREASING 2' ANNUALLY

CLASSIFICATION
~~Changed to~~
UNCLASSIFIED
by authority of
J.C. Satterthwaite DRN
By HT
Date 9/29/50

Section III

POPULATION AND SOCIAL CONDITIONS

15. General.

The area covered in this survey includes the Bombay province, the state of Baroda, the Western Indian States Agency in Kathiawar and Cutch, and Portuguese India. All these are grouped together as Western India. The focal point of the entire area is the city of Bombay.

Western India has been known for its sea-borne commerce since the time of India's earliest inscriptional records in the 3rd century B.C. In literary texts giving us still earlier allusions to the area, the chief port of Western India is mentioned as Broach (variously called Bhrigukaccha, Bharukaccha, Bharoch), which the Greeks knew as Barygaza. This is in Gujarat, at the mouth of the Narbada (Nerbudda, Narmada) river, and it continued to be India's leading outlet for traffic to the Persian Gulf, the Red Sea, and northeastern Africa until the arrival of the Europeans. As late as the 17th century it was still usable, and the British had a trading depot there as well as agencies at Surat and Cambay which are near it. These are all useless now because of the silt which has been filling up the Gulf of Cambay and the mouths of rivers which flow into it, but for two millennia, and possibly longer, these cities handled exports from central, northern, and eastern India. Many goods came even from distant Patna, the capital of Bihar, a thousand miles to the northeast, traversing the long trade route that runs through the city of Ujjain in Rajputana. This commerce and the local industries, with the rich agriculture, combined to make Gujarat one of the wealthiest and most highly cultured sections of India. Great and beautiful temples were built there; homes were decorated with intricate wood carving; exquisite textiles were

CLASSIFICATION ~~CONFIDENTIAL~~
Changed to
UNCLASSIFIED

woven and dyed in the local shops.

From here went many of India's products which became famous in the west--cotton, which the Greeks called "tree wool," rice, spices. There was also the peafowl, which Persian monarchs and their Greek imitators kept to adorn their palaces.

One of Gujarat's most ancient industries was the manufacture of textiles. This is represented in our own day in Ahmadabad and other cities of that region by mill production of cloth as well as by the old handicrafts. The fertility of the land still joins with industry to keep it prosperous. But the center of foreign trade has shifted three hundred miles south to Bombay, to a region that could not compete in wealth and culture with Gujarat a thousand years ago. Similarly, the cotton industry is now larger in Bombay City than in Ahmadabad, while a third center of manufacture has been developed at Sholapur in the southern part of the province.

The territory included in this survey is moderately varied in geography and climate, yet it lacks the extremes of terrain and temperature known elsewhere in India. It has mountains, but they are low. It has level farming land, but hills are everywhere in sight, unlike the expanses of the northern plains. Two of India's medium sized rivers, the Narboada and the Tapti, cut through the northern region running from east to west; in the center and south the Godavari and the Kistna systems have their sources, but attain no great size till they have flowed much farther to the east. There is no desert, though the region extends to the southeastern edge of the Rajputana waste. Rainfall is adequate, varying from light in Cutch (about 15 inches annually) to heavy along the Malabar Coast (over 100 inches annually), but the region escapes the desiccating drouth of Sind and Baluchistan and the saturating wetness of Assam. The temperature rises to 110° F.

CLASSIFICATION
Changed to
UNCLASSIFIED
~~CONFIDENTIAL~~

or a little more in the northern part of the area, less around Bombay and on the Malabar Coast, and sometimes drops to less than 60° F. in the north, but these extremes are not as wide as those of northwestern India. Agriculture depends on that branch of the southwestern monsoon which sweeps in from the Arabian Sea and reaches a point just north of the Gulf of Cambay. The heaviest downfall is along the coast; as the monsoon goes inland it loses much of its moisture before it crosses the Western Ghats.* Rainfall in Western India is only slightly supplemented by irrigation from rivers or village storage tanks (which we would call ponds or lakes).

The area falls into two great divisions. The first, often called Gujarat, consists of Cutch, Kathiawar, and Gujarat proper. The second is made up of the western coastal plain and its hinterland. In the first division there is a gradual climatic transition from the extreme drouth of Sind, north of the area, across the useless salt marshes of the Rann of Cutch, into the bare and rocky island of Cutch; thence to the better watered but not markedly fertile peninsula of Kathiawar with its mountainous center rising to 4,000 feet, where lions are still said to lurk. The adjacent region of Gujarat is moderately dry in the north and hence only moderately productive, but in the center and south the plains are rich and more thickly populated than any other part of the Bombay province.

Near Daman the narrow coastal plain begins, continuing south past Bombay City into the Konkan and Malabar coast. Behind it rise hills known as the Western Ghats, and behind them is the plateau called the Deccan. South of the Deccan districts are those of the Bombay Carnatic. The hinterland, being less watered than the coastal plain, is less fertile, yet distinguished cities and powerful kingdoms have flourished there at many times, boasting great achievements of literature

---

* This branch of the monsoon is distinguished from the other, which comes up the Bay of Bengal and blows up the Ganges valley as far as the Punjab, finally depleting itself against the Himalayan range.

CLASSIFICATION
Changed to
UNCLASSIFIED

~~CONFIDENTIAL~~

and architecture, and nurturing philosophy.

Two great sections of the Indo-Aryan peoples inhabit this region now. The first of these to arrive were the linguistic ancestors of the present Marathas, who hold the area from Bombay city south. These appear to have come from the north by way of Sind and Cutch. How much of Gujarat they ever held we cannot say. Physically the Marathas today are inclined to be short, stocky, with broader faces and slightly higher cheekbones than most other Indians. They have been a vigorous military people, aggressive against their neighbors, driving their way southward over all the west coast below Gujarat, eastward into the hinterland, and beyond that to the middle of the peninsula. They are still extending the frontiers of their language into the Dravidian region south of them and into the Aryan regions of the Central Provinces north and east of them.

Later than the Marathas came the Gujars, or Gurjaras--how late we do not know. They gave the name to Gujarat, which they now hold, along with Kathiawar. They were a nomadic group, whose route seems to have been along the border of Rajputana and Sind. Linguistic relatives of theirs, by the same name and also generally nomadic, are found today in Kashmir, the Punjab, and Sind. Like the Marathas they were a vigorous, self-assertive people, who prospered at the expense of their predecessors and neighbors.

By mediaeval times two important cultural developments in Western India had been well started. One was the settling of the Jains in Gujarat. This religious group, because of its extreme devotion to the general Indian doctrine of non-injury of living creatures (Ahinsa), abhors agriculture and practises commerce. Gujarat, being a trader's paradise, naturally attracted them.

The second cultural development was the immigration of Arab sailors into the lower western coast. They settled in a number of places

CLASSIFICATION
Changed to
UNCLASSIFIED
~~CONFIDENTIAL~~

and formed a separate community known as Moplahs, or Mappilas. When the Europeans arrived on the western coast, the Moplah merchants resisted them as rivals, and the Europeans (Portuguese) retaliated fiercely and cruelly.

The Muslims first raided Gujarat in 1024, when Mahmud of Ghazni plundered the celebrated temple of Somnath, on the southern coast of Kathiawar, and won uncalculated booty. For seven hundred years the conflict between them and the Hindus was intermittently carried on until British rule brought it to an end.

European sea-borne contact with India began on the west coast, although the first city which Vasco da Gama reached (1498) was Calicut, south of the area covered by this survey. The first Portuguese factory (trading depot) was at Cochin (1500). The vigorous program of the Portuguese to deprive the Arabs of the trade to India and the East Indies required that the Portuguese acquire strong positions along the Indian coast. In 1510, Affonso de Albuquerque, as Governor, took Goa, which in 1530 became the Portuguese headquarters. In 1534 Bassein (about 30 miles north of Bombay), along with Salsetto and Bombay, had been granted to the Portuguese by Sultan Bahadur Shah of Gujarat, and in the same year the same ruler gave the Portuguese permission to build a fort at Diu, which lies at the extreme southern tip of Kathiawar. This last they still hold. Bombay, however, was ceded to the English in 1661 and Bassein fell to the Marathas in 1739. Daman, which also the Portuguese still own, was taken by them in 1531 and again in 1535, but not permanently until 1559. The Portuguese had by then established themselves as a strong power. They had withstood the hostile efforts of the Arab sailors, who were sometimes supported by Egypt or Turkey, and the single or concerted attacks of Indian potentates.

CLASSIFICATION
Changed to
UNCLASSIFIED

~~CONFIDENTIAL~~

The English began their trading operations with India by forming the East India Company under a charter granted by Queen Elizabeth on December 31, 1600. After varying negotiations with the Mughul emperors, the Company opened its first factory (trading depot) at Surat in 1612, with subsidiary posts along the western coast at Cambay and Broach. The island of Bombay came to the English Crown from the Portuguese in 1661 as part of the marriage portion of Catharine of Braganza, queen of Charles II; and the king shortly afterwards granted it to the East India Company for an annual rental of ten pounds. The city of Bombay was founded by Gerald Aungier, who was governor from 1669 to 1677. In 1661 the factory at Surat was constituted the seat of the "President and Council" of the ports on the west coast, and Madras was made the presidency town of the east coast. In 1687 Bombay supplanted Surat as seat of operations on the west coast, though it did not become of great importance until the time of Warren Hastings (1772-1785) when a route was developed across the Western Ghats. At about the beginning of the 18th century the old company had to compete with a new company, but in 1708 the old and the new were united in "The United Company of Merchants of England trading to the East Indies," which acquired sovereignty over India stage by stage after the battle of Plassey in 1757 and was dissolved after the Sepoy Mutiny in 1858.

The English merchants, until early in the 19th century, met many vicissitudes in Western India, having to counter the opposition of their European rivals, especially the Portuguese, withstand the hostility of local rulers as well as the Mughul emperors, and deal with the Marathas, the strongest people today in Western India.

These last came to power under Shivaji (1627-1680), who from 1657 until his death was in open or latent hostility with the Mughul emperor Aurangzib. Shivaji's greatest aim was to restore a Hindu empire in

CLASSIFICATION
Changed to
~~CONFIDENTIAL~~
UNCLASSIFIED

India, and he never departed from it. When he died his dominions extended from below the present Goa almost to Surat, eastward well into the Deccan and southeast to Tanjore.

The successors of Shivaji were not capable men like him, but the natural strength of the Maratha people was employed in conquest and national expansion under the leadership of a Chitpavan Brahman family (see paragraph 17) having the title of Peshwa. The first Peshwa, named Balaji Visvanath, served under Shivaji's grandson Sahu from 1714 to 1720. When Balaji died his son Baji Rao (I) succeeded him and established a ruling line. The position of Peshwa was nominally that of the king's second minister, but the post became all-important in the kingdom, and the king himself sank into a second, and then insignificant, position. The seat of the Peshwa dynasty was at Poona, whence was directed all the Maratha expansion. The dynasty lasted until 1818 when the British finally defeated it.

At about 1760, when the Maratha power was at its height, it extended to the Indus and the Himalayas in the north and almost to the extremity of the peninsula in the south. The country in between, which the Marathas did not own, paid them tribute. The kingdom shrank shortly thereafter in consequence of a defeat by Ahmed Shah Durrani of Afghanistan at Panipat near Delhi in 1761.

The Peshwas ceased to hold a completely dominating position among the various Maratha chiefs, some of whom actually set up a number of kingdoms in northern and central India. Chief among these were four--Baroda, Indore, Gwalior, and Nagpur--of which the first three still exist, though with smaller territories than they held at the beginning of the 19th century. Internal dissension among Maratha chiefs and the Peshwas weakened the state and left it open to dissolution.

The British fought three wars with the Marathas (1775-82;

CLASSIFICATION ~~CONFIDENTIAL~~
Changed to
UNCLASSIFIED

1803-05; 1817-19), finally breaking Maratha power in the third war and bringing the Peshwa line to an end. In so doing they gained control of central and western India, established peace, and opened the way at last for full development of Bombay city as a port and Bombay province as an agricultural and industrial area of major importance in the economy of India (see Section V). The Mutiny of 1857-58 did not affect Bombay or interfere with its economic progress.

When the route to Britain from India by way of Suez was opened in 1843, western India was able to attract a large foreign trade, and this possibility was increased when the Suez canal was opened in 1869. Meanwhile a railway line of 25 miles had been opened from Bombay to Thana in 1853, which was afterwards extended to the southeast to meet a line coming up from Madras, and to the northeast to meet a line coming from Calcutta. Another line was constructed from Surat to Ahmadabad, which was later continued south from Surat to Bombay, while a metre-gauge line was built from Ahmadabad to Delhi. The broad gauge line was extended from Baroda, which is south of Ahmadabad, to Agra. All parts of India except Sind have quick connection by these roads with Bombay, and this communication has contributed to the city's maritime importance.

In the past fifty years the Bombay province has nurtured a great deal of nationalist agitation, first in Poona, where the Marathas had their capital and still centralize their cultural sentiment; later in Ahmadabad, where the Gujaratis find their cultural focus; and still later in Bombay, as the greatest city of western India today. This will be discussed below in Section IV.

Bombay city is known today as the Gateway to India, and it vies with Calcutta as the leading city of the land. Although British commercial firms tend to keep their head offices in Calcutta, American

CLASSIFICATION
Changed to [redacted]
UNCLASSIFIED

(and before the war German and Japanese) enterprise seems to favor Bombay. It has greater facilities than Calcutta as a port and better access to the greater part of India's textile industry. The steel industry of India, however, is nearer Calcutta. Not only the conduct of the present war, but the peacetime prosperity of future India as well, depends in large measure upon these two cities. Of the two regions which they dominate, western India seems likely in the future, as throughout most of India's past, to have the greater career in foreign trade.

CLASSIFICATION Changed to UNCLASSIFIED ~~CONFIDENTIAL~~

16. Population.

The 1941 population of this region was 32,853,136. Both in area and in population it compares in size with pre-war Poland. The increase in population between 1931 and 1941, some 15 percent, occurred chiefly in the manufacturing centers, Ahmadabad, Surat, Baroda, and Bombay city.

Other sections of India have more people per square mile, but this region is more highly urbanized than other parts; that is, more people live in towns having a population of 5,000 and over. About a fifth of the population is classed as urban. One reason for this relatively high proportion of town dwellers is the historical fact that the area was long divided into many separate political jurisdictions, each of which had its own capital.

There has been a change in the distribution of population in recent years due to the advent of bus transportation. Buses, especially in the Deccan and Konkan districts, have revolutionized the habits of the countryside and have brought into contact with one another portions of districts which formerly hardly knew of one another's existence. The larger villages are gaining at the expense of the smaller and the headquarters towns at the expense of the large villages because the bus makes marketing in a large center easy and gives the purchaser a greater range of choice.

The cities have seen a great influx of male workers who spend a number of years in the factories and then return to their home villages. This accounts for the great deficiency of women in the large cities. For every thousand men there were (1931) only 554 women in Bombay city, 719 in Ahmadabad, 806 in Baroda. For Bombay province as a whole, there were only 909 women for every 1,000 men, this deficiency

CLASSIFICATION
Changed to
UNCLASSIFIED

being a common phenomenon in India where childbirth mortality is high and female children less highly prized than male.

Only some 5 percent of the Indian Army was formerly recruited from this region, but the proportion has risen since intensive recruiting has been instituted under war conditions. Classes not enrolled in the army before are now being enlisted.

CLASSIFICATION
Changed to
UNCLASSIFIED

 ~~CONFIDENTIAL~~

Men of Military Age--1931

	20-25	25-30	30-35	35-40
Bombay, including states and agencies	1,260,843	1,222,619	1,158,768	951,619
Baroda	117,074	92,954	87,256	78,244
Western India States Agency	185,981	142,139	130,217	118,970
	1,561,898	1,457,712	1,376,741	1,228,833

Total Men* of Military Age, 1931 4,849,844

Estimate of Total Men of Military Age, 1942 5,500,000

* Bombay age-distribution figures for 1931 include 775,340 men from Sind. Since Sind was later constituted a separate province and is treated in the Survey for Northwestern India, the figure given for total men of military age does not include the Sind population.

1941 Census Results

	Persons	Area	Density	Percent Increase	Literacy Rate (%)
Bombay	20,849,840	76,443	273	15.9	19.5
Baroda	2,855,010	8,176	349	16.6	23.
Deccan States (and Kolhapur)	2,785,428	10,870	256	13.4	13.1
Western India States Agency	4,904,156	37,894	129	16.1	14.6
Gujarat States	1,458,702	7,493	195	15.2	8.2
Total	32,853,136	140,876	233 (Avg.)		18. (Avg.)

~~CONFIDENTIAL~~

CLASSIFICATION
Changed to
UNCLASSIFIED

CITIES
1941

1.	Bombay	1,489,883
2.	Ahmadabad	591,267
3.	Poona	258,197
4.	Sholapur	212,620
5.	Surat	171,443
6.	Baroda	153,301
7.	Bhavnagar	102,851
8.	Hubli	95,512
9.	Kolhapur	93,032
10.	Bandra	71,789
11.	Jamnagar	71,588
12.	Ahmadnagar	70,418
13.	Belgaum	58,319
14.	Junagadh	58,111
15.	Gadag Bettigira (Dharwar District)	56,283
16.	Broach	55,810
17.	Dhulia	53,308
18.	Nasik	52,386
19.	Rajkot	52,178
20.	Bijapur	48,968
21.	Jalgaon (E. Khandesh District)	48,596
22.	Porbundar	48,493
23.	Dharwar	47,992
24.	Nadiad (Kaira District)	46,510
25.	Godhra	41,986
26.	Morvi	37,048
27.	Satara	33,548
28.	Veraval	30,275

~~CONFIDENTIAL~~ CLASSIFICATION Changed to UNCLASSIFIED

17. Ethnic and Social Groups.

The classes of society in this area are separated according to geography, which marks off great blocks of the population, and caste, which stratifies the people within each geographic division.

The four natural regions within the scope of this survey correspond, in large measure, to linguistic boundaries as well.

Gujarat--which includes Baroda, Kathiawar, and Cutch--is predominantly Hindu and Gujarati is the spoken language. It has a relatively high proportion of Muslims because of its proximity to the Muslim northwest and because of a long history of Muslim rulers. For centuries Gujarat was split into many small rival kingdoms. Castes were also split internally according to political boundaries, so that the larger castes, such as Brahman and Vani, are subdivided in Gujarat with a minuteness unrivalled elsewhere.

The Deccan--which here refers only to the western edge of the great Deccan plateau, i.e. the districts of Bombay province that lie back of the coast--contains a relatively homogeneous population. About a third of its people are Marathas, who have few subgroups within the caste. The Brahmans of the Bombay Deccan have only 13 local divisions as compared with the 170 of Gujarat. Marathi is the principal language.

The Konkan--the southern coastal districts of Bombay province--has an economy conditioned by the sea. Fishing and coastwise trade are important; immigrants have come in by sea. The population includes Roman Catholics whose ancestors were converted by Portuguese missionaries, Muslims whose forefathers were forced or persuaded to accept Islam, Hindus whose forbears remained steadfast to Hinduism. Thus there is greater social diversity here than in the Deccan, though not quite as much caste fragmentation as in Gujarat. Konkani and Marathi are the main languages.

CLASSIFICATION
Changed to
UNCLASSIFIED

The Carnatic--the four southernmost districts of the province and the state of Kolhapur--is largely Kanarese-speaking. The Carnatic is a more prosperous land than the arid Deccan; it is covered with thick forests and well watered fields, and the standard of living is somewhat higher.

The larger castes of Western India usually have three or four divisions; each division uses a different language, which is the language of a geographical division of the province, though all sections of the caste have similar customs and status. Thus a gardener of the Mali caste from Gujarat does the same work, observes the same religious ceremonies, is bound by much the same caste customs as a Mali who lives in the Deccan. But the one speaks Gujarati, the other Marathi, and though their kinship is patent to the outside observer, they themselves feel little or no affinity for each other.

As a matter of fact, caste loyalty and class consciousness generally have had a very narrow radius, and have extended only to those folk within the common marketing region, or at most, within the same administrative district. There has, however, been a great widening of social horizons within the last few decades. Members of the same caste are often very partisan in demanding that their fellows get proper representation in public life; even the depressed classes show some faint group consciousness. Nationalist and religio-nationalist sentiments are today immensely important in producing a wider caste solidarity. But the social outlook of many is still local and restricted, and caste is a differentiation of major social importance.

The descriptions of the larger castes, given below, follow the arrangement of the census, which sets up the following categories:

CLASSIFICATION
Changed to
UNCLASSIFIED

Group	Total Population in Western India (1931)
Brahmans	1,227,990
Other Advanced	1,430,729
Intermediate	16,159,014
Aboriginal and Hill Tribes	2,154,800
Other Backward	1,131,740
Depressed Classes	2,520,444
Muslim	2,727,389

The Brahmans of Western India occupy the same social status as their congeners in other parts of Hindu India. They are topmost in social standing, highest in literacy and education, possessors of a great proportion of government posts. There are more than 200 subcastes of Brahmans here, most of them small regional groups with some minute peculiarity of religious worship or etiquette by which they are distinguished from other Brahmans.

Under the heading "Other Advanced Classes" are grouped a number of castes who rank below the Brahmans but are still in the upper levels of Hindu society. By profession they are soldiers (military men are outranked only by priests according to orthodox Hindu theory), skilled artisans, and traders. Some of these groups wear the sacred thread, emblematic of "twice-born" status. They are generally vegetarians (in public, at any rate), forbid the remarriage of widows, and follow high caste standards in other respects.

The groups labelled "Intermediate" make up the bulk of the population. The great cultivator castes, Agri, Koli, Maratha, Kunbi, Mali, and Rajput, fall into this category. Pastoral classes, such as Ahir and Kurub, are counted among the intermediate castes. The village craftsmen--the tailor, the potter, the blacksmith, the carpenter, the oil extractor, the weaver--are ranked in this class. Barbers and washermen, sailors and fishermen are some other intermediate groups. And as always in India, there is much overlapping.

CLASSIFICATION
Changed to
UNCLASSIFIED

CONFIDENTIAL

Traders are generally somewhat higher than the intermediate group, but some fall within it. Some cultivators listed under this rubric are field laborers, little better than the lowest groups.

"Aboriginal and Hill Tribes" are the peoples who are presumably descended from the original inhabitants of the land. For the most part they are inhabitants of remote and isolated hill tracts, whose isolation has kept them apart from the historical developments that occurred in the lowlands. They were little affected by Islam, or for that matter, by Hinduism either. With the great development of communications in recent years many tribesmen have come in contact with neighboring peoples and have assumed Hindu traits. The gradual assimilation of tribal folk to Hinduism is a process that is widespread and steadily accelerating.

Although the tribal peoples do not share all the Hindu ways, they have decided ideas about caste. Tribesmen look down upon all untouchables and do not deign to take food from them or to marry with them. This feeling of superiority does not mean that the tribesmen are much above the depressed classes economically. Some are successful farmers, but for the most part tribal tillage is slovenly, yielding only a scanty harvest of the coarsest grains. A number of tribes are still nomadic agriculturalists who burn down a patch of jungle, sow seeds in the ashes, and move on to another place after the harvest is in.

The tribesmen, unlike upper caste Hindus but like the lower castes, are addicted to various kinds of home brew--toddy made from the sap of the coconut palm, beer from grain, or a potent drink made of the flowers of the mahua tree. Those who have moved down to the plains work at menial tasks as laborers, basket makers, wood cutters.

The "Other Backward" castes are those which are very low but yet not so degraded as to be called untouchables. They include farmers

CLASSIFICATION
Changed to
UNCLASSIFIED

whose traditional avocation is crime, ditchdiggers, stone-workers, orchardmen.

"Depressed Classes" in Western India are held in the same low state as elsewhere in the land. They live in a separate quarter of the village, do the humblest and meanest tasks, teeter close to the edge of starvation every now and again, and are dependent on the bounty of the higher castes for what food they get.

Among the depressed classes themselves there are rigid gradations. There is no caste which does not think itself higher than some other, although the other caste does not always share that belief.

While Islam is not supposed to recognize caste, actually Muslims are ranked, and rate themselves, according to Hindu caste standards. Muslim traders are accorded the social status taken by similar Hindu traders, and Muslim laborers occupy the same station in life as Hindu laborers. Three kinds of Muslim groups are found in the area. One includes immigrants from Arabia, from the northwest, and from Muslim Africa who maintain their national solidarity, and do not intermarry with other Muslim groups. A second class is composed of converts from Hinduism who have maintained their Hindu caste traditions after adopting Islam. They do not intermarry with other Muslims. These are the great majority of west coast Muslims. A small proportion are in a third class--converts who do intermarry freely with other Muslim groups.

Many castes are known by several different names; the following list of caste names gives the page in this survey where the caste is mentioned:

CLASSIFICATION
Changed to
UNCLASSIFIED

	Page		Page
Agasa	25	Havik Brahman	21
Agri	23	Holiya	34
Ahir	23	Hutgar	26
Audich Brahman	21	Jed	26
Bania	22	Kammar	27
Banjig	22	Katkari	31
Bedar	32	Kayasth Prabhu	22
Berad	32	Kelasi	25
Bharwad Dhangar	23	Kokna	32
Bhangi	33	Koli	26
Bhil	30	Konkanasth Brahman	21
Bhoi	24	Koshti	26
Bohra	35	Kumbhar	26
Chambhar	33	Kunbi	27
Chitpavan Brahman	21	Kurub	23
Chodhra	31	Lingayat	27
Daivdnya Brahman	22	Lohana	22
Darji	25	Lohar	27
Darzi	25	Luhar	27
Deshasth Brahman	21	Luvana	22
Devang	26	Macchi	27
Dhanka	31	Madig	34
Dhed	34	Madiwal	25
Dhobi	25	Mahar	34
Dhodia	31	Mali	29
Dubla	31	Mang	34
Gaud Saraswat	21	Maratha	27
Hajam	25	Meghwal	35
Halalkhor	33	Memon	35

CLASSIFICATION
Changed to
UNCLASSIFIED

	Page		Page
Mirai	25	Shimpi	25
Momin	36	Sochi	33
Mochi	33	Som	22
Mochigar	33	Sonar Aksali	22
Nadig	25	Sutar	30
Nayak (Naik)	32	Talavia	32
Naikda	32	Talvar	32
Naik-Makkalu	32	Teli	30, 36
Nagale	32	Thakur	32
Nhavi	25	Vaddar	33
Od	33	Vaghri	33
Padma Sali	30	Valmiki	32
Panchal Brahman	22	Vani	22
Parit	25	Vania	22
Pathan	36	Vanjari	33
Phulmali	29	Varli	32
Pinjari	36	Veer Shaiva	27
Rajput	29	Viswa Brahman	22
Sai	25	Wankar	34
Sali	30	Winkar	26

CLASSIFICATION
Changed to
UNCLASSIFIED ~~CONFIDENTIAL~~

1. Brahman

There are over 200 Brahman subcastes in this area, the five most important being:

Audich Brahman (168,165). Throughout Gujarat. A few are farmers, some are cooks, others family or village priests. Many have become clerks.

Chitpavan or Konkanasth Brahman (123,161). In all parts of the Deccan and Konkan. They are generally fair, well built, often have gray-green eyes. One of the most progressive of Brahman groups, they have entered government service extensively. The Peshwas (see paragraph 15) were of this caste. Many follow the new professions as lawyers, engineers, doctors, bankers. Other pursue their traditional occupations of priests, writers, landowners, and farmers. One description of the Chitpavans includes this bit of information, "They admit outsiders into their caste, but only immediately after birth and before the navel cord is cut off."

Deshasth Brahman (308,272). In the Deccan and Carnatic districts. They are usually somewhat more strict in caste observance than are Chitpavans and in their ceremonies act as though they were superior to other Brahmans. Most of the village bookkeepers (Kulkarnis) of the Deccan belong to this caste. They are also priests, writers, traders, bankers, and landowners.

Havik Brahman (35,741). In the southern districts of the province, their chief location being northwestern Mysore. More than half are priests. Most of the laymen of the caste are husbandmen and skillful gardeners, growing pepper, betel nut, and cardomom. Some are clerks in government service, traders, moneylenders, and village headmen.

Gaud Saraswat (60,256). Ratnagiri, Kanara, and Belgaum districts and Savantvadi State. Unlike many Brahmans they will eat fish. Many are hereditary village accountants.

CLASSIFICATION
Changed to UNCLASSIFIED ~~CONFIDENTIAL~~

2. Other Advanced Castes

Kayasth Prabhu (31,126). Their traditional occupation is that of soldier or writer. The caste has a long history of public service in responsible administrative offices. They still serve in the army and are engaged in political affairs. They are vegetarians in public but do not shun meat or fish in private.

Lohana or Luvana (171,857). Principally in Gujarat and Cutch, and also in Sind (see Survey of Northwest India). They are bankers, merchants, grain dealers, farmers, and laborers. By far the majority of them are traders. Those of the Gujarat Lohanas who are of the Vaishnava sect do not eat meat or drink liquor. Others eat goat and sheep meat and have no objection to taking wine.

Panchal and Viswa Brahman (59,327). Found in the Carnatic and adjacent parts of the Deccan. Artisans in metal, stone, and wood who have a relatively high status. They are vegetarians and do not eat food cooked by any caste but their own.

Som, Sonar Aksali, and Daivdnya Brahman (212,930). In the Deccan, Konkan, and Carnatic. The hereditary occupation of the class is making gold and silver ornaments and setting precious stones. They are also farmers and government servants. A number have entered the learned professions, especially in the city of Bombay. The highest of the Sonar subcastes is known as Daivdnya Brahman. So many artisan groups of lower status have begun to call themselves Sonar that the Sonar proper are adopting other designations. Most Sonars will eat fish and meat. They will accept food only from their own caste or from Brahmans.

Vani (434,791). Also known as Vania, Bania, or Banjig (in the Carnatic) they form the bulk of the trading classes in the region. There is scarcely a village that does not have a small store run by a Bania. There are a great many subcastes, but all follow the caste

CLASSIFICATION
Changed to
UNCLASSIFIED

~~CONFIDENTIAL~~

calling, differing largely in matters of sectarian religious doctrine and observance. A number adhere to the Jain religion. Most, however, are staunch adherents of the Hindu Vallabhacharya sect, to which they are said to have been converted four hundred years ago. In important market centers the principal Bania merchants form a merchant guild called Mahajan. These organizations fix the rate of exchange and discount, levy fees for charitable and communal purposes. In recent years the Mahajan has often included representatives from other castes, including Parsi and Muslim traders as well as artisans. The Vani are strict vegetarians, and the use of liquor is forbidden.

3. Intermediate Castes

Agri (256,605). Farmers who usually work their own holdings. Some are tenants of a landowner who gets a share of the crop. Some produce salt; a few are carpenters and bricklayers. They claim to be of Kshattriya (warrior) caste but "their small size and dark colour, their love of liquor and their belief in devs or non-Brahman gods" make this claim a doubtful one. They are found principally in the districts of Thana and Kolaba and in the state of Janjira.

Ahir (186,295). Most numerous in Kathiawar and Cutch. The traditional occupation of the caste is cattle breeding, but many are now farmers. A few have become carpenters. Their diet is similar to that of the Vanias and Kunbis--millet, pulses (peas and beans), ghi, milk, and vegetables; they also eat any kind of meat but beef. The men wear a black and white headdress, a short puckered jacket, and light trousers tied at the ankle. The women have coarse shawls which hang free, pink cotton skirts, and large flat anklets.

Bharawad Dhangar or Kurub (1,077,352). A pastoral caste whose traditional occupation is that of shepherd. The term Kurub or Kuruba is used largely in the Carnatic where the castemen are

CLASSIFICATION
Changed to
UNCLASSIFIED

reputed to be very honest and have a great name for sturdiness and obstinacy. They have been described as a "cheerful, frank, and decent people." In addition to caring for their flocks, they weave blankets, cultivate, and lend money. They are often the village watchmen, and the village wrestler is usually of this caste. Kuruba men are small, dark, and strongly built, remarkably sturdy and independent.

The Dhangars are the shepherds and wool weavers of the Deccan and Konkan. The breed of horse they raise near Ahmadnagar, called the Dhangar's horse, is famed for hardiness and endurance. During the fair weather they graze their herds and flocks over the country, collecting considerable quantities of grain in return for folding their sheep and goats in fields that are in need of manure. Some have given up their original occupation and work as bricklayers, petty shopkeepers, messengers, money lenders, and cloth merchants. They have a military tradition and still make good soldiers.

The Bharwad is the shepherd of Gujarat. Many keep cows and buffaloes and make their living by the sale of ghi. In worse repute than other shepherd classes of the area, they are noted for their stupidity, uncleanliness, and general uncouth manner. The men wear three blankets, one wound around the head, another tied around the waist reaching to the knee, a third thrown around the shoulders. The womens' dress consists of a petticoat, a loose bodice, and a brown woolen headscarf which is figured with yellow or red spots.

Bhoi (71,315). Fishermen, found along rivers throughout the area and on the coast. Their hereditary occupation of carrying palanquins is now obsolete, save for the bearing of idols during religious processions. Some are gardeners, raising cucumbers and watermelons along streams.

CLASSIFICATION
Changed to
UNCLASSIFIED

Darji, Shimpi, Sai, and Mirai (159,236). Tailors. In Gujarat they are known as Darji, Sai (needle), and Mirai. A good many have settled in the cities of Bombay and Karachi; the owners of tailor shops are not always of this caste, but the workers usually are. They are strict vegetarians and occupy a status between the higher and the lower castes.

In the Deccan, Konkan, and Carnatic they are known as Shimpi (the term darzi is used throughout India as a general word for tailor of any caste). Those who do not follow the caste trade may be cloth dealers, farmers, or laborers.

Dhobi, Parit, Agasa, and Madiwal (84,206). Washermen, called Agasa or Madiwal in the Carnatic, Parit in the Deccan and Konkan, Dhobi in Gujarat. The latter term is widely used for all washermen. They belong to the class of village servants and in the villages are paid in grain rather than cash. Their usual rate of pay for Europeans is one or two annas for every piece. They rank low on the caste scale, just above the untouchables.

Hajam, Nhavi, Nadig, and Kelasi (212,940). Barbers, generally known as Hajam in Gujarat, as Nhavi in the Deccan and Konkan, as Nadig or Kelasi in the Carnatic. Their hereditary functions are those of hairdressing, shaving, and nail-paring, but their services extend far beyond these duties. They often act as go-betweens in marriage arrangements and frequently are directors of funerals. They may serve as torch bearers, as house servants, as messengers. Indian barbers also continue the ancient practice of bleeding by the application of leeches, of opening boils and abscesses, of performing minor surgical operations.

Village barbers are paid not in cash but in grain at harvest time.

CLASSIFICATION
Changed to
UNCLASSIFIED ~~CONFIDENTIAL~~

Koli (2,200,182). The term Koli is applied to a great variety of groups who are farmers and laborers. The social rank of Koli is between that of the aboriginal Bhil and the cultivating caste of Kunbis. In physical appearance the Kolis are very much like the Kunbis, and do not belong to the untouchable class. A hundred years ago they were fierce raiders, and in recent years they earned a reputation as cattle thieves and dacoits. They still preserve something of a military tradition and should offer a great reservoir of recruits.

The Kolis are one of the most numerous of west coast castes and are found throughout the area. Kolis, like the other castes here mentioned, have no central organization. Consciousness of class extends only within the radius of the immediate neighborhood, and generally they are not aware of, or interested in, the fortunes of other Kolis.

One division of the caste, the Mahadeo Koli, (112,101), was classed among the aboriginal tribes in the 1931 census. They are among the poorest of the caste, though they assert that their original occupation was that of "infantry man." They are now farmers and laborers, watchmen, footmen, and fishermen.

Koshti, Hutgar, Jed, Winkar, or Devang (101,092). Various names for weavers of the Deccan, Konkan, and Carnatic. The caste has been hard hit by the competition of mill-made cloth. Some have turned to trade or agriculture.

Kumbhar (371,492). Potters who form part of the village establishment. They receive grain at harvest time in payment or are allowed to hold village lands. They make tiles and bricks as well as pots. In Kanara they have the privilege of making earthen figures of rural gods. In Poona they are famous for making children's toys.

CLASSIFICATION
Changed to
UNCLASSIFIED

Kumbhars are sometimes used as mediums to receive and interpret messages from the gods.

Lingayat or Veer Shaiva (1,370,023). The term Lingayat refers to a religious sect rather than to a caste and embraces at least seventy different castes. They have been described as a peaceable race of Hindu puritans. They acknowledge the God Shiva, whose emblem, the lingam (a phallic symbol), each member must always wear on his person. Originally they seem to have been the product of one of the numerous reformations against the supremacy of the Brahmans, but their practices have gradually reverted to orthodox Hinduism.

Most Lingayats are farmers or traders. Among the educated there is a strong feeling of rivalry with Brahmans because of the disproportionate share of government offices held by Brahmans. The rivalry between the two sects has become very important in the political and social life of the Carnatic.

They are strict vegetarians. Lingayats have seldom entered the army or the police force, but during World War I a double company of Lingayats was founded and attached to the 105th Mahrattas at Belgaum Depot.

Lohar, Luhar, and Kammar (120,958). Blacksmiths, whose hereditary occupation is the making and repairing of agricultural implements. They also make locks, key-latches, and similar articles of iron.

Macchi (113,310). Fishermen and sailors. They are the navigators and captains on the small country craft which carry the coastwise trade. They are related to the Koli caste.

Maratha and Kunbi (6,427,488). These two castes together form a considerable proportion of the population of the area. The

CLASSIFICATION
Changed to
UNCLASSIFIED

Kunbi is inferior in status to the Maratha, but the line of demarcation between the two communities is not a hard and fast one. Intermarriages occur, and a wealthy Kunbi often succeeds in marrying his daughter to a poor Maratha family.

Kunbis are farmers or field hands, while the Marathas, even though they may be mere cultivators, more often follow other vocations and regard farming as a secondary profession on which they may fall back if they are not successful in other lines. The social superiority of Marathas is maintained by their prohibition of widow remarriage and by their observance of purdah--whereas Kunbis both allow widows to remarry and do not seclude their women.

Marathas are mainly landowners and farmers. A few are ruling chiefs; most of the village headmen in the Deccan are Marathas. But their traditional trade is that of soldiering. They have a long and proud military record, and never allow you to forget it. The following description is from R. E. Ethnoven's work on the tribes and castes of Bombay:

"As a class Marathas are simple, frank, independent, liberal, courteous, and when kindly treated, trusting. They are a manly and intelligent race, proud of their former greatness, fond of show, and careful to hide poverty. The Maratha is proverbially dauli or fond of show. A Maratha though almost starving will raise a copper's worth of clarified butter and rub his moustache and hands with it, and sit washing his hands and face in front of his house so that passers by may think that he has had a rice dinner. A Maratha may dress in a rag at home but he always has a spare dress which he himself washes, keeps with great care, and puts on when he goes to pay a visit..."

Kunbis number 2,198,455. They also enter the army. The landowners among them are well to do. But the majority of this caste

are impoverished farmers. They are efficient cultivators, especially on irrigated lands. But in spite of their hard work, most Kunbis are in debt. Many work in the factories and mills of Bombay City to save enough for marriage and other expenses.

Marathas and Kunbis together furnish the bulk of army recruits in this area. Before the war they formed about five percent of the Indian army. Although the proportion has risen since, the recruiting possibilities of this group have barely been tapped.

Mali, Phulmali (334,821). The name of this caste ("garland-maker") has come to be the general term for gardener. The Malis proper are largely in the Deccan and Gujarat. They are farmers, gardeners, and day laborers. The women help the men in the fields and sell their flowers, fruit, and vegetables. The Phulmali are florists.

Rajput (651,197). Chiefly in Gujarat and those sections closest to Rajputana. In Bombay they hold the same social position and have the same qualities as have Rajputs in Northwestern India (see Survey of Northwest India). Soldiers and landowners by tradition, many have lost their lands and have been reduced to farming or even more humble occupations. They do not differ markedly from other Hindus in religious observances. The following description by a British authority indicates their main characteristics. "In manners the Rajputs are courteous and polite but somewhat touchy and ready to take offense. They are fond of children and respectful to women. A Rajput of good family, if reduced to be a cultivator, would rather bring himself to fetch water in the dark than allow his wife to bring it. Their sensitiveness to female honour is so keen that a man, however distantly related to a woman who has dishonoured herself, considers it his duty to destroy her and her seducer."

As elsewhere in India, the ranks of Rajputs are constantly being increased by groups whose affluence has enabled them to raise themselves in the social scale. They stake out claims to being Rajputs, and in the course of time and by dint of assiduous efforts, they become bone fide Rajputs.

All Rajputs are divided into a number of clans which usually interdine, though a man may not take his wife from his own clan. The Rajputs of the Deccan and Southern Maratha country form a distinct community from those of Kathiawar and Gujarat.

Sali and Padma Sali (75,442). Weavers, same as Devang (q.v.).

Sutar (227,884). Carpenters who make and mend carts, ploughs, and other agricultural implements. They form part of the village staff and are paid in grain at harvest time or, as in parts of Gujarat, hold land at a light quit rent in return for the services they render the village community. The town carpenters construct houses and make furniture.

Teli (127,397). Oil extractors. By hereditary occupation they extract oil from coconuts, peanuts, and various seeds. They eat meat and drink liquor.

4. Aboriginal and Hill Tribes

Bhil (777,051). One of the most numerous of the hill tribes of India who inhabit the forests and back country as far north as Sind and eastward into the Central Provinces. Mostly peasants, laborers, and watchmen, though they pursue many other occupations, all of a humble order, ranging from charcoal burning to cattle stealing. Some, in the remotest sections, still go about armed with bows and arrows or pellet-bows. Those who have been in contact with Hindus for some time are virtually indistinguishable from other low ranking castes.

CLASSIFICATION ~~CONFIDENTIAL~~
Changed to
UNCLASSIFIED

The stereotype of their character as given by a British official reads, "The Bhil is frank, thriftless, timid, fond of spirits, and loathes steady work. At the same time he is simple, faithful, and honest, kindly and intelligent."

The staple of their diet is corn meal and buttermilk, occasionally peas and beans or grain mixed with vegetables. The more prosperous Bhils have rice. They eat all kinds of meat, including that of animals found dead as well as of animals killed for food.

Chodhra (84,068). Chiefly in the Surat district where they are farmers, specializing in the growing of rice. They claim to be Rajputs, but their neighbors count them as Kaliparaj ("dark people") a rather contemptuous term in general use for all the aboriginal tribes of Gujarat.

Dhanka (35,079). A sub-division of the Bhils.

Dhodia (164,568). Another Surat tribe of field laborers and village servants.

Dubla (96,421). Laborers, most of them hereditary servants of cultivators of high or intermediate caste. The men work in the fields, the women are household servants in the master's family. They are entirely dependent on their masters for food and clothing. Associations with higher castes has made them more like castemen than are most aboriginal tribes of the area.

Katkari (87,785). A tribe of the Thana and Kolaba districts, especially backward even among aboriginal peoples. They are employed as field laborers for two or three months during the year. A few till their own fields, using the hoe but not the plough. When their supply of grain has been exhausted, they sell firewood and wild honey and with their bows and arrows kill small deer, hares, and

CLASSIFICATION
Changed to
UNCLASSIFIED ~~CONFIDENTIAL~~

monkeys. In extreme circumstances, they dig in old threshing floors for rats, eating the rats and taking their stores of grain. The men are notorious for petty thievery of all kinds.

Kokna (73,744). Laborers and cultivators; Deccan and Gujarat.

Nayak (Naik, Naikda) (113,808). In the Panch Mahal and Surat districts largely. Laborers and wood cutters, only a few own bullocks and ploughs and till fixed fields. Most are content with rough hillside tillage, burning brushwood to sow coarse grain among the ashes. They earn some money by collecting forest produce. Formerly they were among the fiercest and cruelest of predatory tribes, but they have little of their old wild strength left today.

Talavia (113,682). Originally a branch of the Dublas, who now consider themselves superior to the parent caste. They are very close to caste Hindus in dress and custom.

Thakur (110,274). Found principally in the forests of the Thana, Kolaba, and Nasik districts. Laborers and farmers, who eke out their earnings by collecting wild fruits, roots, and bark.

Varli (206,919). A forest people who live in their own small communities and have little to do with anyone else. Those who farm their own lands are much like cultivators of the Kunbi caste.

5. Other Backward Classes

Bedar (also known as Berad, Talvar, Valmiki, Naik-Makkalu) (206,883). Farmers of the Deccan and Konkan who were formerly notorious thieves and highway robbers. Many are now hired as village watchmen, following the Indian precept of "set a thief to catch a thief." Most are laborers or independent cultivators; a few are hunters and snarers. They all observe the agricultural rites practised by Kunbis. In caste rank they are generally lower than Kunbis though above the untouchable Mahars.

CLASSIFICATION
Changed to
UNCLASSIFIED

Vaddar or Od (103,296). Workers in stone and earth, who are found throughout India and in this area are particularly numerous in the Carnatic. They are extensively employed in building and maintaining irrigation works and railways, and in making field improvements of all kinds. A group of Od families often works in a gang, contracting to finish a job by a certain time. Some within the caste specialize in digging ponds and wells and in making field embankments; others make charcoal and cement; still others quarry stone and work as masons. They rank below the cultivating castes and above the depressed classes.

Vaghri (121,122). A Gujarati class whose several divisions have a number of different means of livelihood. They are laborers whenever there is work to be had. At other times they tend mahua and rayan trees, paying a lump sum to the owner of the trees and selling the produce. They grow vegetables and fruit for sale. Other income is derived from keeping poultry, hunting, and painting.

Vanjari (144,071). Carriers and cultivators, Deccan, Gujarat.

6. Depressed Classes

Bhangi or Halalkhor (134,281). Scavengers and carriers of night soil. They make baskets, serve as messengers. They eat any meat they can get, and that which they can get is usually from an animal that has died by the roadside or in the fields. One division of Deccan Bhangis is Muslim insofar as they attend a mosque, but they also maintain their worship of Hindu gods. They are at the bottom of the caste scale.

Chambhar, Mochi, Mochigar, Sochi (379,091). Leather workers who make shoes, whips, bridles, waterbags. Those who do not follow the caste calling are landless day laborers. They do not eat beef nor do they use meat from an animal that dies of natural causes, and

CLASSIFICATION
Changed to
UNCLASSIFIED

so consider themselves superior to Mahars.

Mahar, Holiya, Dhed, Wankar (1,427,175). The village menials. They do the most tedious chores, and are always at the call of the higher castes. Their routine duties involve the cutting of firewood, sweeping, and the digging of graves. For private services they are paid in cash or in cooked food. For such public services as sweeping the village roads or being messengers they receive a small government payment. They also have certain perquisites, such as the monopoly of animals found dead in the village limits, the shrouds taken off the corpse before cremation, copper coins thrown aside at funerals.

Members of this caste have entered into domestic service for Europeans to a considerable extent. They make excellent railway gang laborers and have flocked to industrial centers where they find employment as unskilled labor.

Impure to caste men, their touch, even the touch of their shadow, is thought to be defiling. The village barber will not shave Mahars, nor are they allowed to draw water from the village well. In some districts they formerly had to wear an earthen pot around the neck in which to spit, lest their spittle pollute a caste Hindu if he trod on it. When a Brahman walked by, they were forced to lie on their faces, lest their shadow fall on him. These restrictions are no longer maintained, but in the villages the Mahar is still the local drudge. Low as they are, they despise the Mangs for eating pig; though it must be added that the Mangs despise them for eating beef.

Mang or Madig (309,963). A class that follows a variety of occupations, all of them defiling to the caste Hindu. The following passage is a description from a British source: "The Mangs are hard-

working, but dirty, unthrifty, passionate, revengeful, and greatly feared as sorcerers. They make and sell leather ropes, hempen cords, bamboo baskets. They are musicians, songsters, scavengers, husbandmen, messengers, beggers, labourers, sellers of cowdung cakes, carpenters, watchmen, and hangmen. The proudest moment in a Mang's life is said to be when he hangs a Mahar, the hereditary rival and enemy of his tribe."

The Mangs are another of the groups whose level of life is so low that they must turn to petty crime.

Meghwal (113,706). Weavers and tanners. They serve as guides, as do a number of other untouchable castes. No Hindu caste will eat, smoke, or drink with them.

7. Muslim (2,727,389).

Bohra (128,307). There are two separate divisions of this class, really two distinct castes. The members of one belong to the Shiah sect and are descendants of converts made by persuasive Muslim missionaries in the 11th century. They are traders who carry on their commerce throughout the east and have extensive connections with African ports. The Shiah Bohra of the villages is a shopkeeper who sells all manner of consumer goods from confectionery to hardware. They are a thrifty lot, stricter observers of Islamic precepts than are other Muslim classes.

The Bohra of the Sunni sect (76,649) are cultivators whose ancestors were forcibly converted by the Muslim rulers of West India in the 14th and 15th centuries. They are landholders or tenant farmers; the more prosperous have field hands of the Chodhra or Dubla caste, who are really their serfs.

Memon (112,103). A trading class of Kathiawar and Cutch. Sunnis, who are almost entirely small shopkeepers.

CLASSIFICATION
Changed to
UNCLASSIFIED

Momin (40,828). Weavers in silk and cotton, dyers, cloth dealers. A few are farmers.

Pathan (132,068). Immigrants into the area from their northwestern homelands. Many have intermarried with local Muslims and have become assimilated to other groups. They are money lenders, policemen, chauffeurs, mechanics, factory workers.

Pinjari (38,058). Cotton spinners. They stuff mattresses, quilts, and pillows, but the advent of machinery has undermined their traditional occupation.

Teli (59,675). Oil extractors like the Hindu Teli in every respect save religion.

CLASSIFICATION ~~CONFIDENTIAL~~
Changed to
UNCLASSIFIED

18. Language.

The principal languages spoken in the area are Gujarati, Marathi, and Kanarese. Gujarati is the prevailing language of Kathiawar, Baroda, and the northern districts of the Bombay province, and is also widely spoken in Cutch (42 percent). Although it is not the prevailing language south of Surat, a good many of the people of Bombay city are Gujarati speakers. But the main language of Bombay city and of all the Deccan hinterland is Marathi, which had 11,153,000 speakers in the west coast area (1931) as contrasted with 10,481,000 for Gujarati.

Gujarati and Marathi, though not mutually intelligible, are Indo-European languages, ultimately related to the parent stock from which English has come. But the third great language of the area, Kanarese, is of the Dravidian stock, totally different from the languages of northern India. Kanarese numbered 3,197,000 speakers (1931) in the four southernmost districts of Bombay province. Throughout the region there is a considerable amount of bilingualism, so that a Kanarese speaker will often be able to make himself understood in Marathi as well. In addition, many Marathi and Gujarati speakers have some command of Hindustani (Western Hindi), which is native in the United Provinces and the Central Provinces and is to a greater or less degree, depending upon the locality, a lingua franca elsewhere.

Figures for literacy in a native language and literacy in English (given in paragraph 23) show that about twenty of every hundred can read and write and that about two in every hundred are literate in English. There should be no lack of interpreters in this area.

CLASSIFICATION
Changed to
UNCLASSIFIED

~~CONFIDENTIAL~~

Proportions of Speakers of Main Languages to Total Population (1931)

Area	Total Population (in thousands)	Persons Speaking Main Language (in thousands)	Proportion percent
Gujarati			
Baroda	2,443	2,120	87
Western India States	3,999	3,484	87
Bombay (by districts)			
Ahmadabad District	924	820	88
Broach	334	289	87
Kaira	742	702	95
Panch Mahals	455	434	95
Surat	694	650	94
Marathi			
Bombay (by districts)			
Thana	837	726	87
Ahmednagar	988	870	88
Khandesh East	1,206	935	78
Khandesh West	772	208	27
Nasik	1,000	867	87
Poona	1,170	1,035	88
Satara	1,180	1,111	94
Sholapur	878	685	78
Bombay Suburban	180	111	62
Kolaba	629	599	95
Ratnagiri	1,303	1,241	95
Kanarese			
Bombay (by districts)			
Belgaum	1,077	696	65
Bijapur	869	712	82
Dharwar	1,103	864	78
Kanara	418	230	55

CLASSIFICATION
Changed to
UNCLASSIFIED
~~CONFIDENTIAL~~

Languages of lesser importance spoken in the area are:

	Number of speakers in thousands			
	Bombay	Baroda	Western India States	Total Number of Speakers
Western Hindi (Hindustani)	1,561	78	67	1,706
Bhili	579	180		759
Kachchhi	112	18	412	542
Rajasthani	303	7	23	333
Khandeshi	222			222
Konkani	214			214

Western Hindi (Hindustani) is localized in no particular tract of this region; it is often spoken by Muslims as a second language and is the native tongue of many immigrants who have come in to work in factories.

Bhili is giving way to Marathi and Gujarati, though it still flourishes in the remoter parts where the Bhil tribal life is maintained. Bhils are heavily concentrated in the Khandesh District and in the adjoining parts of Bombay and Baroda.

Rajasthani is another language that is spoken by immigrants, in this case by people who have come from Rajputana.

Kachchhi, spoken in Cutch and adjoining regions, is similar to Sindhi.

Khandeshi is found in the twin districts of East and West Khandesh. It is giving way to standard Marathi and in many sections is used only by the older people.

Konkani is the language of Portuguese Goa and the neighboring districts of Bombay. The vocabulary varies with the class of the speaker: upper class Goanese speak it with Portuguese words, Kanara Muslims with Urdu and Arabic terms, while Chitpavan Brahmans mix in a number of Sanskrit words.

CLASSIFICATION ~~CONFIDENTIAL~~
Changed to
UNCLASSIFIED

19. Characteristics of the People.

Marathas are the prime military men of the area. They pride themselves on their soldierly tradition; they keep green the memory of their warrior leader, Shivaji (see paragraph 15).

They have always been recruited into the Indian Army and are now meeting the increased demand for volunteers. Marathas are an assertive people who generally mind their own business but never hesitate to stand up and speak out for their rights. Perhaps less gifted intellectually than Madrasis or Bengalis, they have a certain drive and persistence which count for much in a fight. The great political leader, Tilak, came from the Maratha country and exemplified the spirit of religion, though he himself was a Chitpavan Brahman.

A recent British Army source (Quetta Staff College pamphlet) characterizes the Maratha soldier as poorly educated and fond of his home but able to stand great hardships. It says that the Marathas are well disciplined but when roused see red. An older description, written a century ago, but from the pen of an officer who knew the Marathas well, still holds true in large part: "They are small sturdy men, well made, though not handsome. They are all active, laborious, hardy, and persevering. If they have none of the pride and dignity of the Rajputs, they have none of their indolence and want of worldly wisdom. A Rajput warrior, as long as he does not dishonor his race, seems almost indifferent to the result of any contest he is engaged in. A Maratha thinks of nothing but the result, and cares little for the means if he can attain his object. For this purpose he will strain his wits, renounce his pleasures and hazard his person; but he has not a conception of sacrificing his life, or even his interest, for a point of honor. ...the Maratha is the most formidable enemy; for he will not fail in boldness and enterprise when they are

CLASSIFICATION
Changed to
UNCLASSIFIED
 ~~CONFIDENTIAL~~

indispensable, and will always support them, or supply their place, by stratagem, activity and perseverance. All this applies chiefly to the soldiery to whom more bad qualities might fairly be ascribed. The mere husbandmen are sober, frugal, and industrious, and, though they have a dash of the national cunning, are neither turbulent nor insincere."

Marathas are generally stanch Hindus, though their religious enthusiasm is more an expression of group solidarity than a result of any great concern with the afterworld. Maratha women are never kept in seclusion and are not as cloistered as are women of other Indian communities.

The Gujarati does not usually take to military life. A good many of the people of Gujarat are traders whose talents run to merchandising rather than to campaigning. They are rather more finicky in religious observance than are the Marathas.

The Parsis are a group apart from all other classes of the country. Not only in religion, but in general outlook they differ from other Indians. They are the most westernized group, most highly educated, most progressive in commerce. Parsis have long been prominent in Indian public life and have contributed scholars, lawyers, and doctors of eminence. But their greatest achievements have been in the fields of industry and trade. The great Tata combine was founded and is controlled by a Parsi family. Parsi business men have been eager to adopt new ideas, and their enterprises are among the most efficient in the country. They are so few in number that Parsi officers and men cannot be a very great factor in the Indian Army, but in every kind of economic and political activity, their influence is out of all proportion to their numbers.

The political capacity of the people of the west coast is as

CLASSIFICATION
Changed to
UNCLASSIFIED

high as anywhere in the land. Under the constitutional forms of government in the provinces, from 1919 on, the Bombay administration operated well. The relatively high degree of urbanization makes for a greater degree of political consciousness among the people. Communal problems are not generally troublesome, except in Bombay city where industrial strikes have led to communal friction and set the stage for other communal demonstrations (see paragraph 24).

The educated classes are cosmopolitan in their outlook and forward-looking economically. They are no less nationalist than other Indians. Supporters of the India National Congress come from every level of Bombay society--Hindu and Parsi, Brahman and Maratha. It seems likely that a large proportion of the civil servants and administrators of any future government of India will come from this region.

 CLASSIFICATION ~~CONFIDENTIAL~~
Changed to
UNCLASSIFIED

20. Living Conditions.

Standard of Living. The inhabitants of Bombay province seem to be relatively well off. On the basis of 1931 figures, Radhakamal Mukerjee finds that Bombay possessed 8½ percent of the total population of India and paid 33.3 percent of the income tax received by the central government. The corresponding figures for Bengal were 18.8 percent of the population and 27.4 percent of the income tax. In 1938-39 two and one-half persons (real or legal) out of every thousand in Bombay province had annual incomes of Rs. 1,000 or more; in all India only three-quarters of one person out of every thousand fell in that income bracket.

The following table gives comparative figures on income tax, 1936-37:

	Total income assessed, Rs. thousands	Net total income tax collected, Rs. thousands	Number of assessees
Bombay	421,103	33,169	83,523
Bengal	329,302	24,938	48,533
Madras	173,488	10,708	40,670
United Provinces	123,680	7,967	26,259
Punjab	121,365	7,161	34,737
Bihar	61,416	4,001	17,381

In evaluating this table, it should be remembered that of all the provinces listed, Bombay has the smallest population.

Income tax figures refer only to non-agricultural income. An estimate of the agricultural income of Bombay compared with that of certain other provinces in 1931-32, is as follows:

	Value of agricultural output, in rupees	Total agricultural income per agricultural worker, in rupees
Bombay	773,000,000	173
Bengal	1,317,000,000	134
Madras	1,357,000,000	108
United Provinces	1,337,000,000	74
Punjab	421,000,000	84
Bihar and Orissa	1,051,000,000	87

CLASSIFICATION
Changed to
UNCLASSIFIED

In 1937-38 Postal Savings Bank deposits, per capita, were Rs. 6 for Bombay, Rs. 3 for Bengal and Assam, Rs. 1/2 for Madras, Rs. 3 for United Provinces, Rs. 6 for Punjab.

These figures, however, mean only that the pressing poverty of India presses perhaps a little less hard in Bombay than elsewhere. It has been said that two-thirds of the population of India lives at or below subsistence level and that the national vitality is steadily declining. Certainly an annual income of Rs. 173, as shown above for agricultural workers, must be considered completely inadequate. A more recent estimate of the per capita (not per worker) income of rural Bombay province is Rs. 85. As for industrial workers in Bombay city, the Enquiry into Working Class Budgets (a study of regularly employed workers in the northern factory area, made in 1932) found that 12¼ percent of the family incomes were below Rs. 30 per month while 62 percent were between Rs. 30 and Rs. 60. At best these wages are inadequate for a standard of decency. Even for those with regular employment, whose average family monthly income was Rs. 52/8/11, about one-half the income was spent for food. About six cents a month per family was spent on medical fees and medicines.

An obvious result of such low incomes is unsatisfactory housing, and in the group studied it was found that standards of housing were extremely low. Seventy-four percent (in London it is 6 percent) of the families lived in one-room tenements with 65 percent of these shared by two families, and another 25 percent lived in two-room tenements. At least 80 percent of the one-room tenements measured less than 125 square feet; the average floor space per person was 31.26 square feet. In 26 percent of the cases, there was one water tap for eight or fewer tenements; in another 44 percent, one tap served 9 to 15 tenements; in 29 percent, 16 or more tenements shared one tap.

CLASSIFICATION
Changed to
UNCLASSIFIED

Provision for privies was similarly inadequate. If the whole of Bombay city is included, the figures are even worse. Forty-seven tenement houses had no water tap, while in 1930, 89 percent of the families lived in one-room tenements. In Ahmadabad the corresponding figure was 73 percent.

One striking result of living in one-room tenements is shown by infant mortality figures. In Bombay city, 1927, these were:

Number of rooms	Deaths per 1,000 births
1 room and under	490
2 rooms	203
3 rooms	222
4 or more rooms	195

For babies born in hospitals, the infant mortality rate was 88.

Bombay city is subject to serious crowding partly because of its location on an island where lateral expansion is circumscribed, but very great crowding is found even in the villages.

The provision of housing accommodation by public and semi-public organizations has been more extensive in the city of Bombay than in any other part of India. Since 1920, the government has built 207 chawls (tenement houses) with a total of 16,206 tenements. Between 1925 and 1929 the Bombay Improvement Trust built 99 chawls containing 8,896 tenements. By 1933, 37 percent of the employees of the Bombay Port Trust were housed by the Trust. Recently the Corporation of Bombay built 550 semi-permanent dwellings to replace corrugated iron sheds. It is said that some of these government-built tenements lie idle because workers cannot pay the rent.

In Ahmadabad the Ahmadabad Labor Union, the Vankar Cooperative Society, and the Ahmadabad Mill Owners Association have all built blocks of workers' houses.

CLASSIFICATION
Changed to
UNCLASSIFIED

~~CONFIDENTIAL~~

Rents in Bombay--although they seem high compared with the incomes of the workers--are held down by the Bombay Rent Act. Radhakamal Mukerjee gives the following comparative index numbers of rents for Bombay and Ahmadabad:

Base: 1914-1919 average = 100

	Bombay	Ahmadabad
1920-26	132	292
1927-30	172	359
1931-35	172	403

Average monthly expenditure per family for given income groups among regularly employed industrial workers in Bombay city, 1932-1933, fell into the following categories:

Income group	Food	Fuel and light	Clothing	Rent	Total
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Below Rs. 30	12 9 5	2 4 7	2 16 6	4 9 3	27 9 7
Rs. 30 to 39	16 0 3	2 9 8	2 13 5	5 4 7	34 11 7
Rs. 40 to 49	19 6 5	3 0 2	3 3 7	5 7 11	41 9 1
Rs. 50 to 59	22 15 9	3 7 5	3 12 2	5 15 11	48 6 9
Rs. 60 to 69	26 9 5	3 14 3	4 5 2	6 9 4	55 15 5
Rs. 70 to 79	29 7 3	4 2 7	4 10 8	6 14 4	62 4 3
Rs. 80 to 89	32 12 3	4 9 2	5 8 2	7 8 9	70 4 11
Rs. 90 and over	39 14 6	5 8 7	5 13 6	9 0 4	88 12 0

(12 pies = 1 anna. 16 annas = 1 rupee.
1 rupee = about 30 cents)

Average monthly income, size of family, and percentage distribution of expenditure were as follows:

	Bombay 1932-33	Ahmadabad 1933-35	Sholapur 1925
Average monthly income, Rs.	50/1/7	46/5/0	39/14/10
Average size of families - persons	3.70	4.05	4.57
Percentage of income spent for:			
Food	46.60	49.31	49.25
Fuel and light	7.11	6.65	9.60
Clothing	7.75	9.12	11.86
House rent	12.81	10.97	6.27
Miscellaneous	25.73	23.95	23.02

CLASSIFICATION
Changed to
UNCLASSIFIED

Unfortunately, we have no similar budget or income figures for other parts of Western India. It may be noted that although the above data are ten years old, it is the general opinion that the standard of living has improved little if any during the past decade. Some believe it has declined.

Present Food Situation. By far the largest item in the food budget is rice. Although Western India grows one million tons of rice a year, it customarily imports (chiefly from Burma) about 40 percent of the rice it consumes. In Konkan, the best rice area in Western India, a very good quality of rice is grown which the cultivators sell in the Bombay or other superior markets. They then buy poorer quality Burma rice for their own food. At present (since the loss of Burma) Western India must find a way of supplementing its rice crop. This year (1942) the government has taken steps to this end: (1) power to control sale and transport of foodstuffs and certain essential commodities was delegated to the Director of Civil Supplies; (2) no person is permitted to remove rice from Kanara District without a license; (3) similarly, no one is permitted to remove rice from Bombay city or suburbs without a license; (4) the Bombay Department of Agriculture, with the slogan "More food crops mean full pockets and full stomachs," appealed to cultivators to grow more food, offering practical inducements in the form of (a) interest-free loans for seed and cultivation, (b) money advances for wells and land improvement on the condition that food crops only are grown until the end of the war, (c) remission of taxes on land newly brought under cultivation, if sown to food grains until the end of the war; (5) the government is advising people to consume jowar, bajra, and wheat instead of rice; (6) all government experimental farms and stations have been ordered to concentrate their work on seed production to complement the education of

CLASSIFICATION
Changed to
UNCLASSIFIED

cultivators on the use of improved seeds; (7) the government has purchased 500,000 bags of rice and has obtained priorities on a hundred wagons a day to transport wheat from Sind; (8) a Regional Price and Supply Board has been set up in Bombay; (9) the government has fifty grain shops in Bombay, with a promise of fifty more, where grain can be bought at regulated prices. Such grain shops are also maintained by many industries, including 40 percent of the mills under the control of the Bombay Mill Owners Association. In October 1941, the import duty on wheat was reduced from Rs. 1/8/0 to Rs. 0/2/0 per hundredweight. The government of India Wheat Control permitted Bombay Province to import 90,000 tons of wheat in May and 36,000 tons in June (1942). Bombay city's share of this was 14,600 tons and 30,000 tons, respectively. The government has discussed but has not yet adopted a law requiring a certain ratio of food to non-food crops. (These measures dovetail with efforts to reduce the output of cotton; see below.)

Bombay and Madras provinces are the chief "deficit" provinces in respect to food supply. Bombay province normally grows less than two-thirds of the essential commodities it consumes. Its normal deficit is 850,000 tons, consisting specifically of rice (480,000), wheat (240,000), gram (70,000), and jowar (50,000). In 1942 the rice crop was below normal, making the deficit this year 1,100,000 tons of grains. According to the Director of Civil Supply, the daily food and fuel consumption of Bombay city is: cereals - 2,214,000 lbs.; pulses - 295,200 lbs.; ghee and oils - 639,600 lbs.; sugar - 268,800 lbs.; charcoal - 1,230,000 lbs. To feed the city on the minimum standard of the textile worker requires 200 carloads a day.

Although no real military emergency had yet arisen in Bombay in 1942, the effects of the war were apparent and gave a foretaste of what might be expected in case of invasion. Many prices rose

CLASSIFICATION
Changed to
UNCLASSIFIED

drastically--for example vegetable prices increased by 200 to 400 percent. Some of the commonest goods became so scarce that long queues formed in front of shops. This was particularly true of sugar and kerosene. Kerosene is used generally by the people for lighting purposes, the city's consumption being normally 500,000 Imperial gallons per month. Since the fall of Burma, the only source of supply is Iran; but shipping space is limited, and only small reserves have been built up. One result of commodity shortages was profiteering. Though the government fixed the prices of certain commodities, it became almost impossible to enforce these limits. To remedy this, government and private grain shops were opened. However, in September it was reported that the government shops, which had been serving about half the population of Bombay city, were running short of supplies, and it was expected that some of these would have to close. Already some queues waiting before the shops had become unmanageable and had been dispersed by police firing over their heads.

Price Control. The index of Working Class Budgets (July 1933 to June 1934 = 100) had risen from 154 in January 1942 to 177 in June 1942, an increase of 23 points or about 15 percent. Two inquiries in Bombay showed that by July 1942 the cost of living had risen about 70 percent over the pre-war figure. In June 1942 the Bombay Mill Owners Association extended its dearness allowances, but increases in income of agriculturalists and industrial workers did not compensate for the increase in living costs.

It is somewhat difficult to compare price indices for different cities in Western India or for different parts of India because the base years vary. According to the Monthly Survey of Business Conditions, comparing Bengal and Bombay, wholesale prices rose rather sharply when war broke out, leveled off in 1940, rose

CLASSIFICATION
Changed to
UNCLASSIFIED

~~CONFIDENTIAL~~

sharply again in 1941, Calcutta prices being considerably above those in Bombay until November 1941, when Bombay prices rose drastically above those of Calcutta.

Bombay was the first province to compile a cost of living index. The base period originally used was July 1914. The base period is now July 1933 to June 1934. On this base, the Working Class cost of living index was 106 in 1937, 1938, and 1939, 112 in 1940, and 124 in 1941. New all-India indices are now being published on the base August 1939 to show changes since the outbreak of the war.

In general, official efforts at price control had been small and ineffective. The central government, under the Defense of India Rules, delegated the power to control prices to provincial governments. These appointed Provincial Controllers of Prices (in Bombay, Mr. F. J. Karaka) and also empowered District Commissioners to exercise local control. The result was lack of uniformity in price and related regulations of the provinces. A series of Price Control Conferences was held to discuss the problems and suggest measures. The Fourth Price Conference, in February 1942, deprecated provincial bans on exports and hoarding of stocks of foodstuffs. The Fifth Price Conference, in April, strongly urged price control on all-India basis. But it was not until the summer of 1942 that five Regional Price and Supply Boards were set up to coordinate the price and supply policies in their respective regions. The Bombay Board includes, in addition to Western India, Central Provinces, Hyderabad, Western Central India States, and Mysore. Finally in September 1942, the Sixth Price Control Conference recommended a Central Price and Supply Board. An all-India control had previously been set up for two commodities, wheat and sugar.

As a matter of fact, the central government seems not to have been alarmed at the prospect of inflation, at least until 1942. Instead

CLASSIFICATION [redacted]L
Changed to
UNCLASSIFIED

it seemed to take satisfaction in the fact that the prices of manufactured goods rose every month from September 1940 to March 1941 and maintained that there was no danger of inflation. At the same time the price of rice and wheat rose, although other agricultural prices fell. It was felt that price control should not be used to check any betterment in the economic status of farmers. Popular demands for more effective price control were rejected at the Third Price Conference. Finally prices of certain commodities were fixed; that of wheat, for example, was fixed at Rs. 5 per maund at Lyallpur and Hapur. This compares with a five-year pre-war average price of Rs. 2/5. The central government took the position in the spring of 1942 that stock piles of food should not be built up at that time, since the total quantity available was insufficient for the country as a whole.

Under these circumstances, especially in view of the shortage of transport facilities, it is apparent that supplying food for any additional population, particularly in Bombay city, would present large problems. These difficulties of food supply have, in some cases, been aggravated by the local and provincial regulations meant to preserve or enlarge that supply. Furthermore, a newspaper report of September 11, 1942 states that the damage done by floods to the fall crops of rice and millet have virtually nullified the government's efforts to increase production.

Social Security Legislation and Welfare Work. There is very little social welfare legislation in India; but Bombay province has taken the lead both in this and in labor legislation (see paragraph 21).

The first provincial law in India providing maternity benefits was passed by Bombay province in 1929 (amended in 1934). In general, the daily benefits are 8 annas (about 15 cents) in Bombay city and Ahmadabad, and 8 annas or an average day's earnings, whichever is less,

CLASSIFICATION ~~CONFIDENTIAL~~
Changed to
UNCLASSIFIED

in the rest of the province. These benefits are paid for eight weeks. In 1936, 4,310 women (9.75 percent of those employed) received benefits averaging Rs. 24/1/8. The Factory Act (India) controls hours of work, including that of children, night work for women, and certain conditions of work. This act empowers the local governments to make regulations concerning health and safety. There are also the Indian Ports Act, Indian Docks Labourers' Act, the Children (Pledging of Labour) Act, and the Workmen's Compensation Act, which are applicable to all provinces. The Indian Dock Labourers' Act, passed in 1934, lays down safety regulations and provides that children under 12 years old are not permitted to handle goods at the waterside or on vessels. By convention, the weight is marked on heavy packages. There is no sickness or unemployment insurance.

Bombay Municipality and the Bombay Port Trust have a welfare program, chiefly in the field of maternity and infant care.

Numerous private organizations are also active in welfare work. Two large industries, the Spinning and Weaving Mills of Sholapur, and the Sassoon Mills of Bombay, are specially mentioned for their welfare work by the International Labour Office. A Bombay government investigation in 1922 showed that 98 percent of the infants of working women were given opium. The opening of creches in mills tends to counteract this evil. In 1927, 32 mills and in 1933, 104 mills, had such creches: in Bombay, 22; Ahmadabad, 64; Sholapur, 7; and elsewhere, 11.

The Bombay Presidency Infant Welfare Society has seven welfare centers and three maternity homes, at Wadi Bundar, Worli, and De Lisle Road. The Postal Unions (Bombay) and the Ahmadabad Labor Union are notable for welfare work. The Social Service League, whose

CLASSIFICATION
Changed to
UNCLASSIFIED

headquarters are in Poona, works all over India. There is an Indian Seamen's Home in Bombay.

Both public and private welfare and social security programs are quite inadequate. However, Bombay province, like all India, is essentially rural, and social legislation is notably backward in rural areas. As for the rest of Western India, it is safe to assume it is equally backward, with the possible exception of Baroda.

~~CONFIDENTIAL~~
CLASSIFICATION
Changed to
UNCLASSIFIED

21. Labor.

Working Population.

Western India is relatively highly urbanized, 22.6 percent as against 10.9 percent for British India. The figure for Bombay province is 23.3 percent. This is a result in part of the development of the textile industry, both factory and cottage (see paragraph 32). Of the industrial workers in Bombay city, approximately 65 percent work in textiles, 8 percent on railways, and 3 percent in engineering. The classification of workers by principal occupation, in 1931, is shown below (see paragraph 31). The proportions probably did not change materially up to 1939. These figures would seem to indicate that Western India is in a fairly good position, compared with India as a whole, to furnish a supply of labor for training in industry.

There is relatively little immigration into Western India from other parts of the country. Of the population as enumerated in the 1931 census of Bombay province, 95 percent was native. Although 80 percent of the population of Bombay city was born elsewhere, 75 percent were natives of Bombay province. In Ahmadabad 85 percent were natives. Labor in Bombay city comes chiefly from Konkan (60 percent), more particularly from Ratnagiri district in Konkan (50 percent). A second source is the Deccan, which furnishes about 25 percent.

In Bombay city, 90 percent of the industrial workers were found by the Labour Office to be Hindus, although the ratio of Hindus to Muslims in the population was only 34 to 9. The Labour Office states that Muslims do not take to regular industrial employment as easily as do the Hindus. The largest number of Hindus are Marathas, and next, members of the depressed classes. In all, many castes and creeds are represented, but in the cities caste restrictions tend to be relaxed.

CLASSIFICATION
Changed to
UNCLASSIFIED

CONFIDENTIAL

In assessing the economic potentialities of any area, the vigor and intelligence of the people are of great weight. Health, diet, and literacy are dealt with elsewhere in this survey. Here it may be said that the International Labour Organization recognizes poor health as the most potent cause of inefficiency in India. Recent American observers (Grady Mission) believe that Indian labor is not inherently inefficient; on the contrary, it is easily trained. Doubtless an increase in the worker's diet would be a prime factor in increasing his efficiency.

Although literacy should never be identified with intelligence in India, nevertheless a literate population has certain advantages from the point of view of the employer. The Report of the Royal Commission on Labour states that it is almost impossible to overestimate the consequences of illiteracy, which are obvious in wages, health, productivity, and organization.

For special vocational educational facilities and the government's labor training program, see paragraph 23.

Rates of Pay.

During the 1930's the Labour Office of the government of Bombay made a general wage census, though wage and cost of living data are meager in India as a whole. Representative figures for industrial employment are given below, but because of the complexities in payments, averages or summary figures would be misleading. For example, among plants and even within the same plant there were variations of rates, periods, and methods of calculating for similar operations. Wages were often supplemented by various kinds of allowances: dearness allowances, grain allowances, house rent allowances, "bad climate allowances" (Rs. 5 per month in three government saw-mills in Kanara), tram-fare allowances. Regarding grain allowances, the G.I.P. Railway

CLASSIFICATION
Changed to
UNCLASSIFIED
~~CONFIDENTIAL~~

granted a bonus of Rs. 2 to workers whose monthly pay fell between Rs. 16 and Rs. 30 when the price of the staple was dearer than 12 seers (about 24 lbs.) per rupee but not dearer than 10 seers; for a worker receiving Rs. 5 to Rs. 16 the allowance was Re.1. Bonuses were paid for steady attendance, good work, or festivals. Deductions were made for various reasons. It may be pointed out in passing that although the Factory Act provides for a higher overtime rate (time and one-fourth, or time and one-half), it was paid by very few Bombay concerns. Often overtime rates were paid only when the hours exceeded a total normal monthly number, as in the case of the B.B. & C.I. Railway. In the case of one Bombay firm this number was 240 (20 x 8). In the following table the average daily earnings in selected occupations are given.

	Bombay City	Ahmadabad	Sholapur	Thana, Ratnagiri, Suburban Bombay
	R. a. p.*	R. a. p.	R. a. p.	R. a. p.
Engineering:				
Moulders	1 14 11	1 9 2	1 5 9	1 5 5
Blacksmiths	2 4 5	2 1 6		2 3 7
Fitters	2 6 3	1 15 10	1 7 7	
Machinists	2 5 3	1 13 2	1 6 3	2 0 2
Carpenters	2 3 10	2 2 0		1 12 2
Painters	1 13 10	1 10 9		1 3 2
Cotton Textiles:				
Strippers	0 13 8	0 15 4	0 9 8	0 13 6
Doffers	0 10 4	0 11 3	0 7 6	0 10 2
Doffers (women)	0 9 9	0 11 2	0 7 5	0 10 4
Reelers (women)	0 10 2	0 13 3	0 5 10	0 10 7
Grey winders	0 12 5	0 12 7		
Grey winders (women)	0 9 11	0 11 0	0 5 6	0 10 2
Warpers	1 11 6	2 5 4	1 9 2	1 4 4
Weavers (2 loom)	1 6 1	1 14 8	1 5 4	1 4 7
Weavers (4 loom)	2 1 1		3 7 4	
Oilmen	0 15 9	1 2 8	0 10 11	0 15 1
Fitters (ordinary)	1 9 7	1 8 3	1 3 9	1 6 7
Coolies	0 12 8	0 12 11	0 9 1	0 13 6
Coolies (women)	0 8 7	0 9 0	0 5 5	0 7 9

*Re. = rupee, about 30 cents; 16 annas = 1 rupee; 12 pies = 1 anna

CLASSIFICATION
Changed to
UNCLASSIFIED

~~CONFIDENTIAL~~

At the Washington Textile Conference in 1937, R. R. Bakhale stated that the Ahmadabad textile wages were the highest in India. This might be inferred from the above figures. Bombay is ahead of the rest of the province in engineering wages, but it yields first place to Ahmadabad in textiles. Data from the same census show that wages for skilled workers in oil mills are ordinarily higher in Ahmadabad than in Bombay, but for all other industrial workers in the province, wages are highest in Bombay. During the 1930's there was a slump in the textile industry, accompanied by a fall in wages.

The Bombay Economic and Industrial Survey Committee has made a study (1940) of the incomes of workers in cottage industries. The income varies from place to place. For cotton textile weavers it is 6 to 8 annas per day, or Rs. 4 to 16 per month; for woolen weavers, Rs. 6 to 8 per month. In shoe-making, an independent artisan in Sholapur makes Rs. 8 to 10 per month, and a master workman (employing 3 or 4 workers) makes Rs. 15 to 20 per month. Wages of urban blacksmiths are Rs. 20 to 30 per month. These are typical examples. It is notable that earnings in cottage industries have fallen by 25 to 50 percent or more in the past 15 years; this is principally because of the growing competition of the factories.

Both piece-work and time rates of pay prevail. The former are common in cottage industries and exist to a considerable extent in the cotton mill industry.

It is surprising to find that in industries where the standard of living of the workers is so low, the pay period is long--usually one month. The difficulty created by this is aggravated by the long waiting period which elapses after the end of the pay period before the wages are actually paid. This waiting period varies greatly but is most frequently 2 weeks when the pay period is one month. It is

CLASSIFICATION
Changed to
UNCLASSIFIED

~~CONFIDENTIAL~~

At the Washington Textile Conference in 1937, R. R. Bakhale stated that the Ahmadabad textile wages were the highest in India. This might be inferred from the above figures. Bombay is ahead of the rest of the province in engineering wages, but it yields first place to Ahmadabad in textiles. Data from the same census show that wages for skilled workers in oil mills are ordinarily higher in Ahmadabad than in Bombay, but for all other industrial workers in the province, wages are highest in Bombay. During the 1930's there was a slump in the textile industry, accompanied by a fall in wages.

The Bombay Economic and Industrial Survey Committee has made a study (1940) of the incomes of workers in cottage industries. The income varies from place to place. For cotton textile weavers it is 6 to 8 annas per day, or Rs. 4 to 16 per month; for woolen weavers, Rs. 6 to 8 per month. In shoe-making, an independent artisan in Sholapur makes Rs. 8 to 10 per month, and a master workman (employing 3 or 4 workers) makes Rs. 15 to 20 per month. Wages of urban blacksmiths are Rs. 20 to 30 per month. These are typical examples. It is notable that earnings in cottage industries have fallen by 25 to 50 percent or more in the past 15 years; this is principally because of the growing competition of the factories.

Both piece-work and time rates of pay prevail. The former are common in cottage industries and exist to a considerable extent in the cotton mill industry.

It is surprising to find that in industries where the standard of living of the workers is so low, the pay period is long--usually one month. The difficulty created by this is aggravated by the long waiting period which elapses after the end of the pay period before the wages are actually paid. This waiting period varies greatly but is most frequently 2 weeks when the pay period is one month. It is

CLASSIFICATION
Changed to
UNCLASSIFIED
~~CONFIDENTIAL~~

small wonder, therefore, that people of India, especially industrial workers, are notoriously in debt. The Payment of Wages Act, 1936, was designed to correct the worst of such abuses by limiting the pay period to one month, the waiting period to a week or 10 days, and regulating strictly various kinds of fines and deductions.

A favorite way of meeting the rising cost of living in India is the "dearness allowance." While the basic rate of pay remains the same, an allowance depending upon that rate and the cost of living is added. Soon after the war broke out, workers demanded allowances of 25 to 40 percent. The Bombay Provincial Trade Union Congress appointed a special committee to carry on a campaign for allowances, especially in the cotton textile mills. Soon discussions with employers were inaugurated by government officials in all the provinces. In Bombay, procedures laid down in the Industrial Disputes Act (1938) were followed. The Textile Labour Association of Ahmadabad made its demands in December 1939, but when efforts at conciliation failed, a strike was called for February 26, 1940. Through the intervention of the Governor, the dispute was submitted at the last moment to the Industrial Court, which awarded a monthly cash allowance of Rs. 3/5 for every rise of eleven points in the official Ahmadabad cost of living index over August 1939. The court also ordered cost-price grain shops to be opened for cotton mill workers.

In Bombay city, after considerable agitation, the Bombay Mill Owners Association agreed upon a dearness allowance of two annas a day to all employees drawing less than Rs. 150 per month, with a future adjustment if the cost of living index rose above 123. This offer was rejected by the workers, and a general cotton mill strike was called on March 3, 1940, which continued until April 13. However, the rate of two annas a day was finally accepted. This rate was then quite

CLASSIFICATION
Changed to
UNCLASSIFIED
~~CONFIDENTIAL~~

generally adopted by employers in other industries. At the time, the Bombay cost of living index stood at 112, but by June 1941 it had risen to 122. In Sholapur cotton mills an allowance of one anna a day was agreed upon.

After a compromise, the Bombay Electric Supply and Tramways Company agreed to give an allowance of Rs. 3 per month to employees on a salary of Rs. 100 or less, or 1.75 annas per day to daily wage earners.

The basic allowances, with additions in some cases, granted in 1940 by the municipalities to their employees were as follows: Bombay, Rs. 2 for those drawing Rs. 50 or less; Thana, Rs. 4 for those drawing Rs. 75 or less; Ahmadabad, Rs. 2 for those drawing Rs. 30 or less; Poona, Rs. 3 per month. The government of Bombay granted Rs. 2 to employees making up to Rs. 39 in Bombay city or up to Rs. 29 outside the city, in case the cost of living index rose above 117. Because of the sharp rise in prices in 1942, the government of India announced a new scale of allowances for employees to become effective on August 1. These allowances differ according to the rate of pay and the size of the town, there being one scale for Bombay (and Calcutta), another for Ahmadabad and Poona (and towns of similar size in the rest of India), and a third for all smaller towns.

Labor Supply.

As would be expected, there is a predominance of males in the cities, e.g., 1,000 to 554 females in Bombay, 1,000 to 719 females in Ahmadabad. Unlike Japan and our own South, Bombay does not use large numbers of women in textile mills. Many city workers maintain their ties with village homes where wives and children remain. Only gradually is a permanent working force being built up in the cities. However, the Royal Commission on Labour stated that a large majority of the labor force of Ahmadabad is permanent, in spite of the fact that 80 percent has connections with villages.

CLASSIFICATION
Changed to
UNCLASSIFIED

~~CONFIDENTIAL~~

The recruitment of cotton mill workers is carried on largely through jobbers and mukkadams ("bosses"); earnings are diminished by payment of fees. In engineering trades an apprentice system prevails. In a few cases (Government Ammunition and Ordnance Factory at Kirkee, General Motors, Ford, Burmah Shell, and Bombay Telephone Company) special labor officers have charge of hiring and firing. The G.I.P. Railway has an established order of employment preference beginning with retrenched staff, next including ex-strikers of 1930, apprentices nearing completion of their training, etc. In engineering trades, unlike the textile industry, usually no substitutes are taken on for regular employees temporarily absent. Labor turnover is therefore very low. The turnover in textile mills is about 30 percent, except in Sholapur where labor is drawn largely from near-by villages and is therefore more stable.

In the engineering trades, the one-shift practice has prevailed in the past. A Labour Office report (pre-war) stated that 83 percent of the factories work only one shift. Indeed only one engineering workshop worked more than one shift; all other cases of double-shift were transport depots, water works, and like establishments characterized by continuous processes. Cotton textile mills usually work one shift; however, according to the General Wage Census, a two- or three-shift arrangement prevailed in a number of the larger mills (30 out of 57 mills in Bombay city, 28 out of 87 mills in Ahmadabad). In 1937, 47 mills in Bombay and 57 in Ahmadabad had night shifts. The Factory Act lays down ten and fifty-four as the maximum hours per day and per week in non-exempted factories. But the Bombay cotton mills worked typically 9 hours per day. The regulations have now been relaxed in view of the emergency; in November 1941 a limit of sixty hours per week in cotton mills was substituted.

CLASSIFICATION
Changed to
UNCLASSIFIED

Work has been interrupted on numerous occasions by strikes. That in the Bombay textile mills in March and April 1940 was mentioned above. Another general textile strike, which took place in March 1942, affected 157,000 workers, who lost 4½ million days. At about the same time there was a strike in the Bombay plant of General Motors. Thirty-four hundred workers, 95 percent of the total factory personnel, joined the strike, which began on March 10 and ended on April 4. Although on March 6 the government of India had issued an order forbidding strikes, the strikers were not prosecuted, and the government itself negotiated a settlement. In general there is a considerable amount of unrest among the workers.

Bombay and Ahmadabad mills were largely closed down due to strikes after the arrest of the Congress leaders in August 1942. Within a few weeks the workers in Bombay had returned to work. But in Ahmadabad where stoppage was practically complete workers did not return to work in large numbers until November, **but it was believed mills would be in full production by December 1942.**

Trade Unions.

The Labour Gazette reported for Bombay province, March 1936, 131 trade unions, registered and unregistered, with a membership of 113,790. In 1939 the total assets of the trade unions of Bombay province were Rs. 238,000. This probably represents about one-third of the total in India where organized labor is weak due to the lateness and smallness of industrial development. Nevertheless, there are some large and important unions in Bombay. In Ahmadabad in 1937 the Weavers' Union numbered 6,691; the Throstle Union, 10,005; and the Card Room, Blow Room and Frame Department Union, 3,837. The Ahmadabad Textile Labour Federation, with six unions, is the largest local federation in India. It has large financial resources (an income of Rs. 62,000) and paid out

CLASSIFICATION
Changed to
UNCLASSIFIED

~~CONFIDENTIAL~~

benefits amounting to Rs. 43,000 in 1939-40. Transport workers are in general the best organized. The G.I.P. Railway Workers' Union had 8,200 members in 1937, and the National Seamen's Union 8,670 members. Government workers are also organized: two Bombay province federations of postmen and railway mail workers are important. A Communist textile union, Girni Kamgar (Red Flag) had a brief success in 1928 when it organized a strike and secured 50,000 members, but by 1934 the number had fallen to 6,000, and though today it is probably unimportant or non-existent it is thought to have done great harm to the trade union movement. The India Year Book states that the majority of trade unions in India are under Communist or left-wing control but offers no evidence to support this view. In July 1941, a conference of representatives of thirty trade unions was held in Bombay at which it was decided to form an Anti-Fascist All-India Trade Union Council. This would seem to be a left-wing rival to the Indian Federation of Labor, created because of dissatisfaction with the Federation's current policy. Some of the unions represented at the conference were the B.B. & C.I. Railway Workers' Unions, the Dock Workers' Union, the Parsi Textile Workers' Union and the Municipal Workers' Union.

In the summer of 1942 there were reports that the Bombay Mill Owners Association was opposing plans of the central government to require recognition of all trade unions registered under the 1926 trade union act.

Labor Legislation.

In 1934 the Bombay Trades Dispute Conciliation Act was passed, but it is applicable only to the textile industry unless extended by local governments. The province of Bombay was singularly free of large-scale industrial disputes from 1935 to 1939.

CLASSIFICATION
Changed to
UNCLASSIFIED
~~CONFIDENTIAL~~

In 1938, after a record debate, the government of Bombay adopted the Bombay Industrial Disputes Act, which has been called the most advanced piece of labor legislation ever attempted in India. This act replaced the repealed 1934 Act. In general, the law provides for conciliation and arbitration of all disputes concerning wages, hours, conditions of work, etc. and makes strikes and lockouts illegal pending such arbitration.

In 1939 Bombay enacted the Bombay Shops and Establishments Act, the first of its kind in India, although several provinces have since adopted similar legislation. The law was the result of an investigation made by the Labour Office into wages, hours of work, and conditions of employment in retail shops and restaurants. It was found that 65 percent of the persons covered by the inquiry worked 11 hours or more a day. The law provides, among other things, maximum hours of 10 per day in restaurants, and of 9½ per day in shops, with one day a week off with pay.

In 1937 the government of Bombay set up the Textile Labour Inquiry Committee, whose final report was submitted in 1940. In an interim report in 1938 a scale of wage increases in the textile industry was recommended, and most mills accepted the recommendation. The final report has a very wide scope, including matters of health, housing, rationalization, sickness and unemployment insurance, labor exchanges, and many more. However, the recommendations of the Committee can be implemented but slowly, and in some cases only on an All-India basis.

In addition to these laws, certain acts of the central government are important in Western India. The Indian Factory Act (1934), as noted above, limits hours of work in non-seasonal factories (establishments employing 20 or more persons, and using mechanical power) to 10 per day and 54 per week. For seasonal factories the limits are 11

CLASSIFICATION
Changed to
UNCLASSIFIED

~~CONFIDENTIAL~~

and 60 respectively. The act has also various provisions for safety, etc. (For a discussion of other acts see paragraph 20.)

The Present Situation.

Compelled not only to keep industry at maximum production, but also to increase production sharply, the government has recognized the necessity of stabilizing the labor supply in the face of any possible disturbances. By order of the central government, strikes in trade or business undertakings have been prohibited except on fourteen days' notice. By the Essential Services (Maintenance) Order, December 1941, the central and provincial governments are empowered to list essential employments, workers in which may be ordered to remain in a specified area and continue work.

As a matter of fact, it is questionable whether such methods should be relied upon in an emergency. There was a surprising amount of panic in Bombay, considering its distance, when the east coast of India was threatened in the spring of 1942. When Cocanada and Vizagapatam were raided in April, there was a heavy rush of passengers out of Bombay city. In May, Capital reported that there had been a drop of 20 percent in consumption of foodstuffs, chiefly rice, probably due to the evacuation of women and children. At the annual meeting of the Bombay Mill Owners Association at the end of March, Sir Vithal Chandavarkar stated that the sudden exodus due to war panic amounted to 38,000 workers, or 17 percent, and asked how long this panic would last. By mid-April it was reported that Bombay mills had lost half their labor force, and that night shifts had been abandoned in many mills. In May, at a general meeting of Tata Mills, Ltd., the possibility of entire stoppage of night shifts was seen by Sir Sorab Saklatvala, who declared that the workers' exodus from Bombay was beginning to tell adversely on the output of the mills. Trade union officials tried to check the exodus, and in June

CLASSIFICATION
Changed to
UNCLASSIFIED

labor began to return. The exodus of labor from Ahmadabad was not as serious as from Bombay.

In such circumstances, government orders are less effective in matters of production than provisions increasing the safety of the workers would be, especially provisions assuring adequate food stores and perhaps bonuses. These should be accompanied by intelligent propaganda appealing to the reason and self-interest of the workers--if patriotism must be ruled out.

In the Chicago News, August 12, 1942 (a few days after the arrest of Gandhi and others), A. T. Steele, a correspondent, reported from Bombay, "Industrial interruptions which were first limited to Bombay's cotton mills spread yesterday to the big American-owned General Motors plant, where trucks are produced. A considerable number of Indian industrial establishments also were affected." It so happens that many Indian employers in the Bombay-Ahmadabad area sympathize with their pro-Congress workers in the political issues involved. Again, in this type of unrest, government orders are not likely to be as effective as more imaginative and constructive solutions.

CLASSIFICATION ~~CONFIDENTIAL~~
Changed to
UNCLASSIFIED

23. Education.

About twenty out of every hundred people in Bombay province and Baroda State can read and write. This proportion is well above the average for all India; the other Indian States within the scope of this survey have literacy rates which are closer to the national average.

The following table gives the provisional figures for literacy collected in the 1941 census, the test being the ability to read a letter and write a reply.

Region	Number of Literates	Percent of Literacy
Bombay	4,067,700	19.5
Baroda	652,975	22.9
Western India States	717,200	14.6
Gujarat States	119,100	8.2
Deccan (and Kolhapur) States	364,500	13.1

Few women know how to read and write. The discrepancy between the education of boys and girls is reflected in the figures for male and female literacy:

Region	Percent of literates per sex	
	Male	Female
Bombay	29.4	8.7
Baroda	32.8	12.4
Western India States	22.	7.
Gujarat States	13.	3.1

The following more detailed figures are available from the 1931 census and indicate the higher rate of literacy in cities.

	Total	Males	Females
Bombay Presidency & States	8.6	14.3	2.4
Bombay City	26.7	31.4	17.3
Ahmadabad	16.0	24.0	5.0
Poona	33.0	45.8	18.4
Baroda (State)	20.9	33.0	7.9
Western India States	12.4	20.4	4.3
India	9.5	15.6	2.9

CLASSIFICATION
Changed to
UNCLASSIFIED

~~CONFIDENTIAL~~

Parsis are by far the most literate class of the region; about 80 percent of their total number can read and write. Jains and Indian Christians have higher literacy rates than their Hindu and Muslim neighbors.

The Parsis are also highest in the ability to read and write English. In the state of Baroda more than half the Parsi men are literate in English, and over 20 percent of the women are so qualified. In other parts of the area the same proportion among Parsis prevails. In Baroda the Jains come next, but far behind, with 16 percent of the men proficient in English.

Only 1.5 percent of the Bombay population were literate in English according to the census of 1931. Available figures for Baroda State show a rise from 1.66 percent to 2.05 percent in 1941. It may be assumed that about two percent of the people of the area are literate in English. Many more than that can understand the spoken language. There is no dearth of interpreters in the West Coast area, since Parsis, Anglo-Indians, and other groups use English fluently.

Educational statistics are available for Bombay province and Baroda, but not for the other States of the area. Basic educational statistics for Bombay province (1939-40) are:

Total number of educational institutions - 22,322

Arts and Science Colleges	18
Professional Colleges	14
Secondary Schools	790
Special Schools	1,918
Primary Schools	19,115

Only 61 percent of all villages have a school, but there are only 33 "large" villages that do not have at least one school.

CLASSIFICATION
Changed to
UNCLASSIFIED

Total number of pupils in all education institutions - 1,782,072

Boys	1,210,058
Girls	443,648
College Students	17,787
Students in special institutions	66,871
Pupils in recognized* Secondary schools	168,587
Pupils in recognized* Primary schools	1,500,456

Total Expenditure on Education, Bombay province - 1940
Rs. 43,879,934 ($13,164,080)

Cost per scholar Rs. 25

Percent of expenditure from	
Government funds	44.9
Local (district and municipal) funds	15.9
Fees	27.4
Other Sources	11.8

Baroda (1941) had 152 secondary schools with 24,776 students and 2,400 primary schools with 245,603 pupils.

A summary of the standard curriculum for primary and secondary schools has been given in paragraph 23 of the Survey of India.

The University of Bombay is one of the foremost educational institutions in India; it is especially noted for its school of economics and sociology and its school of chemical technology. The University is both an "affiliating" and a "teaching" institution. In its affiliating function, it recognizes external colleges offering instruction in courses of study which it prescribes; these colleges give the instruction and the University sets the examinations and awards the degrees. As a teaching institution, the University of Bombay offers instruction by members of its own staff, who number 462. There are 25 Arts and Science Colleges and 18 Professional Colleges affiliated with the University.

The availability of educated personnel may be judged from the number of higher degrees awarded annually. In 1938-39, colleges in

*Recognized schools are these which conform to government standards and receive grants-in-aid.

CLASSIFICATION
Changed to
UNCLASSIFIED

Bombay province awarded 233 M.A. and M.S. degrees, 1,626 B.A. and B.S. There were also awards of 12 Ph. D. degrees, 2 D. Sc., 374 Master of Law, 47 engineering degrees, and 189 medical degrees.

Baroda has three colleges with 1,672 students (1940).

Distribution of Colleges in Bombay Province (1940)

	Number	Students
Arts and Science	18	12,690
Commerce	2	1,340
Teaching	2	207
Engineering	1	243
Agriculture	1	199
Chemical Technology	1	63
Law	5	1,756
Medicine	2	1,279

Vocational and Technical Education.

In 1938 there were in Bombay province the following professional schools: 3 medical; 1 engineering; 3 agricultural; 63 technical and industrial; 27 commercial. The Victoria Jubilee Technological Institute in Bombay is outstanding. It trains mechanical engineers, electrical engineers, sanitary engineers, chemists, and textile experts. It also offers Saturday and evening classes, attended by people employed in Bombay, in elementary mechanical and electrical engineering, cotton spinning and weaving, electrical wiring, and radio communication. In Poona there is a Technical Institute attached to Fergusson College and a School of Radio Physics and Electronics; a training center for air mechanics was recently opened in Poona (one of ten or a dozen such in India). There are technical, industrial, or vocational schools recognized by the government in about 25 towns. Bombay alone has 31 such schools, Ahmadabad 4, and Poona 11. The total number for the province is 78. Instruction is offered in 25 different fields including, in addition to those named above, automobile engineering, carpentry, typography, leather work and tanning, and others. The expenditure made by the provincial government on technical and engineering institutions in 1938-39 was about

CLASSIFICATION
Changed to
UNCLASSIFIED

~~CONFIDENTIAL~~

Rs. 1,500,000. However, this does not reveal much in regard to the total budgets of such institutions.

In addition to this, the Department of Industries of the province carries on extensive educational work on behalf of cottage industries by means of schools (chiefly weaving), demonstrations (in weaving, sizing, dyeing, tanning, bamboo work, lacquer work), and experimental workshops.

In 1931, the supervision of technical and industrial education in Bombay province was transferred from the Director of Public Instruction to the Department of Industries. In 1937, the Department set up a government apprentice scheme by which selected young men are attached to industrial establishments. By 1940, 400 such men had received training in Bombay city and Ahmadabad, and the scheme was to be extended to Sholapur. The government also awarded scholarships for technical study abroad and in India. By March 1939, thirteen foreign scholarships had been given. Among those for study in India were 40 in technical chemistry and 20 in electrical engineering.

In the past the railway workshops have constituted the principal engineering works. They offer training by an apprentice system.

In view of the emergency need for skilled workers, the government undertook, in March 1941, a special labor training program under the Department of Labor. Three hundred centers (in technical institutes, factories, and workshops) are to train 25,000 men for a period of four to six months each. The total so trained is to reach 48,000 by March, 1943. On the whole, however, training will have to be given "on the spot." In the effects of the rationalization schemes introduced in the Bombay and Ahmadabad mills in the past two decades, the International Labor Organization found some evidence for the belief that Indian labor is easily trained when organization and management are efficient.

(11053)

~~CONFIDENTIAL~~
CLASSIFICATION
Changed to
UNCLASSIFIED

24. Religion.

The distribution of the population of Western India by religions, according to the figures of the 1931 Census, is as follows (figures given in thousands):

	Bombay	Baroda	Western India States Agency
Total Population	17,916	2,443	3,999
Hindus	15,603	2,152	3,247
Sikhs	2	1	--
Jains	199	48	204
Buddhists	2	--	--
Zoroastrians (Parsis)	86	7	1
Muslims	1,583	183	546
Christians	300	7	1
Jews	13	--	--
Tribal	129	45	1

The population of Portuguese India (Goa, Daman, Diu) is about 580,000, but the religious distribution is not available. It is said, (Indian Year Book, 1941-42, p. 268) however, that "the recent census of 1941 is expected to reveal...a population ratio definitely in favor of Hindus." There is a very large Christian population in Goa, but exact figures are not at hand.

It is evident that the Hindus account for over 85 percent of the total population, while the Muslims account for about 8 or 9 percent. Of the lesser religions, Christians and Jains seem to have about two percent each and the Parsis less than one percent.

The religions of India have been treated in the Survey of India, paragraph 24, and the material of that article need not be repeated here. Brief comment, however, is in order concerning the Jains and the Parsis, whose great strongholds in India lie in the area covered by the present survey.

More than one-third of the Jains live in this area. They

CLASSIFICATION
Changed to
UNCLASSIFIED

~~CONFIDENTIAL~~

are especially strong in Gujarat (including Kathiawar) and its chief city Ahmadabad. There they have extensive banking, commercial, and manufacturing interests, quite out of proportion to their numerical strength. They are also well represented in Bombay city, though by no means so influential as in Ahmadabad. The Jains have a loose similarity to the Quaker community of Philadelphia--both are commercially inclined; both believe in "gentleness," which with the Jains takes the form of an intense addiction to the Indian ethical notion of Ahinsa (non-injury of living creatures); both have little poverty, and as a community take care of their less fortunate members.

The Parsis, of whom over 85 percent of India's total live in Western India, are concentrated in Bombay. They are a commercial, banking, and industrialist community, and hold a disproportionately important position in Bombay city's economic life.

The Christian community of Portuguese India is chiefly Roman Catholic, and in Bombay city there are also many Catholics with Portuguese names, who are descendants of the first Portuguese settlers and their converts.

The Hindu-Muslim antipathy is in general acute only in Bombay city. There the mill-workers are mostly Hindus, but when a strike occurs Pathan (Muslim) strike-breakers are imported from the northwest. An industrial dispute, therefore, tends to become a religious riot. Bombay's social atmosphere is poisoned by this fact, and Hindu-Muslim clashes, often not industrial in character, have been fairly common.

Any foreign military force should pay constant regard to Jain and Parsi sensibilities in Western India, and at the same time avoid any involvement in Hindu-Muslim quarrels or industrial disputes that may lead to such quarrels.

CLASSIFICATION
Changed to
UNCLASSIFIED

~~CONFIDENTIAL~~

25. Public Order and Police.

The general character and organization of the police in India has been discussed in the Survey of India, paragraph 25.

The Indian police is organized on a provincial basis, with the Home Member of the provincial government controlling all police work. Under him is the Inspector General of Police, who commands the District Superintendents, each of whom is in charge of the police forces within one of the police divisions into which the province is divided. The District Superintendent of Police has his headquarters, parade ground, and lines (barracks) in the chief town of the district. From there he directs the stations and the outposts. The police are armed with single-loading muskets and bayonets.

Within the district, however, the police force is also subject to the District Magistrate in the enforcement of law and maintenance of order.

At the local police stations complaints of crime are laid and the cases are investigated. If a crime is "cognizable" (not merely a civil matter), a police prosecutor conducts the prosecution of the case in court free of charge to the complainant.

In each outpost there are stationed a few policemen. The aim is to have one policeman to every square mile of territory or to every 1,000 of the population. There are also watchmen (chaukidars) operating under the police.

The railways are policed by a special railway police. In addition to the constabulary force there is a dectective service known as the Criminal Investigation Department (C.I.D.) to deal with specialized and professional crime. The C.I.D. works under a Deputy Inspector General, and its various provincial organizations throughout India return information to a Central Intelligence Bureau under the

CLASSIFICATION
Changed to
UNCLASSIFIED

~~CONFIDENTIAL~~

Home Department of the government of India.

The strength of the Bombay provincial police force in 1938 was 913 officers and 21,619 men. This number included by rank, 9 Inspectors-General and Deputy Inspectors-General; 68 Superintendents, Deputy and Assistant Superintendents; 840 Inspectors and Sub-Inspectors; 4,491 Sergeants and Head Constables; 17,502 Foot (including Water Constables). Official statistics assert that of the total police force (1938) 900 officers and 17,002 men can read and write.

The crime statistics for the year 1938 are as follows:

	Bombay Province	Bombay Town and Island
Offences against the State and Public Tranquillity		
Reported	907	106
Conviction obtained	343	44
Murder		
Reported	433	49
Conviction obtained	134	11
Other serious Offences against the Person		
Reported	4,290	1,093
Conviction obtained	1,733	355
Dacoity		
Reported	204	4
Conviction obtained	44	-
Cattle Theft		
Reported	1,007	-
Conviction obtained	482	-
Ordinary Theft		
Reported	9,302	3,703
Conviction obtained	3,402	1,149
House-trespass and House-breaking with intent to commit Offence		
Reported	9,068	923
Conviction obtained	1,807	201

CLASSIFICATION
Changed to
UNCLASSIFIED

~~CONFIDENTIAL~~

Air raid precautions are the responsibility of the District Magistrate of each district. He sets up the A.R.P. organization and is responsible for its operation. All communications regarding A.R.P. must be sent to or through the District Magistrate even where a separate civil defense controller has been appointed.

The measures necessary for civil defense are considered to be an extension of the peacetime functions of the government (whether central or provincial) to suit war conditions. The responsibility for each subject of civil defense is placed in that department of government which administers a similar function in peacetime. The Public Works Department is responsible for the design and execution of protective works, the Medical Department for hospitals and A.R.P. casualties, the Educational Department for civil defense in "educational institutions, museums, libraries, art galleries, and archeological monuments."

The A.R.P. organization is thus superimposed on the present administrative system and has little separate existence. While it is efficient to have each government official cope with civil defense problems in his accustomed sphere of authority, this plan may be lacking in coordination and the quick mobilization of effort necessary in an emergency. Moreover, the government official, already burdened by numerous duties, usually has little time to devote to planning and organizing A.R.P. work.

There are six civil defense schools in all India: a staff school and a specialist school at Lahore, an instructor's school and an industrial school at Calcutta, an instructor's school at Hyderabad, and a specialist school at Bombay. A.R.P. organization in the city of Bombay is reported to be efficient and ready for possible enemy attack.

CLASSIFICATION ~~CONFIDENTIAL~~
Changed to
UNCLASSIFIED

26. Press, Propaganda, and Censorship.

The leading daily in Bombay, The Times of India, has the second largest newspaper circulation in the country, being exceeded only by the joint Calcutta and Delhi editions of The Statesman. Its editorial policy is independent and rather liberal in regard to most internal matters; in foreign affairs and on questions concerning the larger issues of Indian administration, it follows the lead of the government. As befits a journal in a commercial center, its industrial and financial pages are especially complete and informative. The editor is Francis Low, the owners Messrs. Bennet Coleman and Co., with part of the stock held by employees, some of whom are Indians.

The Illustrated Weekly of India, published by the same owners, has the largest weekly circulation in India. It is a popular magazine, featuring human interest stories and pictures as well as educational articles, with rare excursions into the political field.

Other dailies published in English are the Bombay Chronicle and the Free Press Journal. Both are pro-Congress; the latter expresses Socialist views. The principal vernacular papers are the Bombay Samachar published in Gujarati, the Janmabhumi, also in Gujarati with wide circulation in the Gujarat States, the Kesari, a Marathi bi-weekly.

The political alignment of the newspapers of this area is prevailingly in favor of the Indian National Congress. The circulation according to political affiliations is:

	Dailies	Weeklies
Pro-Congress	192,700	247,900
Moderate and Independent	119,500	65,450
Communist	9,000	5,000
Non-Political	8,500	72,500
Muslim League	4,500	7,500
Khilafat	4,000	3,000
Mahasabha	5,000	7,000
Indian Democratic Party (M. N. Roy)		14,000
Depressed Classes		3,000
Democratic Swaraj Party		15,000

 CLASSIFICATION ~~CONFIDENTIAL~~
Changed to
UNCLASSIFIED

Some of the papers listed as moderate and independent have taken a pro-Congress stand since the data for this list were published (1941). Most of the moderate journals, however, still take the position held by Indian liberals--that nationalist aspirations should be shelved until the Axis is beaten. The recent increase in the influence of the Muslim League among Muslims has probably raised the small circulation of Muslim League organs.

In spite of its comparatively small circulation in relation to population, the press exerts a strong influence. A single copy has many readers and even more listeners, since the news is read aloud or passed along in bazaars and eating places.

Only two commercial radio stations operate in this region, both located in Bombay city. VUB operates on a frequency of 1231 kilocycles, 244 metres. VUB2 broadcasts on 7,240 kilocycles, 41.44 metres. Both stations begin broadcasting at 7:30 a.m., and close down between 10:00 and 11:00 a.m. and between 2:25 and 5:00 p.m. They sign off at 10:45 p.m. Broadcasts are in Gujarati, Marathi, and English.

A good proportion of India's 160,000 receiving sets are in this area; many of them are equipped for short wave reception. Axis propaganda, by short wave from Germany and Italy and by medium wave from transmitters in Malaya and Indo-China, has a considerable audience. The enemy radio has a twofold appeal; it has scooped Allied news agencies in the release of such news as the sinking of the Repulse and the fall of Singapore. Secondly, the widespread antagonism to British rule makes Indians relish broadcasts humiliating to the British. It is to be noted that the attraction of enemy propaganda does not arise from any great pro-Japanese feeling but rather from anti-British sentiment.

India, therefore, is a country in which intelligent and

CLASSIFICATION CONFIDENTIAL
Changed to
UNCLASSIFIED

vigorous Allied propaganda is particularly necessary. All media should be utilized--radio, press, magazines, records, movies. American personnel and materials might be more effective in propaganda work than British, since the United States does not share in the disfavor and suspicion which many Indians display towards England.

Suggestions concerning American propaganda to India are offered in the Survey of India, paragraph 26. For this area, the industrial and commercial strength of the United Nations should be stressed. All statements to the press should carefully avoid political matters, voicing the hope that Indians will be able to solve their political problems.

(11053)

Prominent Newspapers and Periodicals Published in Western India

Newspaper or periodical	Where published	Language	Daily or weekly or otherwise	Estimated circulation	General Remarks
BOMBAY PROVINCE			ENGLISH		
Bharat Jyoti	Bombay	English	Weekly	16,500	Congress Left-Wing. Influential.
Bombay Chronicle	Do.	Do.	Daily Weekly	18,000 22,000	Exponent of official Congress policy.
Bombay Sentinel	Do.	Do.	Daily	9,000	Strongly Communist and uniformly critical of official Congress policy.
Commerce	Do.	Do.	Weekly	750	Commercial journal. Influential.
European	Do.	Do.	Monthly	1,200	Influential.
Evening News of India	Do.	Do.	Daily	8,000	Contains general news. Moderate. Associate publication of the "Times of India."
Federal Observer	Do.	Do.	Weekly	5,000	Contains general news.
Financial News	Do.	Do.	Do.	750	Has influence in the mercantile community. Discusses topics of economic interest.
Free Press Journal	Do.	Do.	Daily	18,000	Extreme Congress with Socialist leanings.
Harijan	Poona	Do.	Weekly	5,000	Originally intended to further the uplift of Depressed Classes, but actually used by Mr. Gandhi to express his views on conduct of Congress organizations and Governments. Influential. (Temporarily suspended publication.)

-79-
CLASSIFICATION
Changed to
UNCLASSIFIED

Illustrated Weekly of India	Bombay	English	Weekly	60,000	Associate publication of the "Times of India." A popular, non-political illustrated weekly.
Independent India	Do.	Do.	Do.	3,000	Highly critical of the present Congress policy and programme. Pleads for India's participation in War against Totalitarian States. Independent Communist leanings.
Indian P. E. N.	Do.	Do.	Monthly	600	Deals with literary topics of international interest and voices the opinion of The World Association of P.E.N. Influence fair.
Indian Social Reformer	Do.	Do.	Weekly	700	Independent--strong but reasoned criticism of Congress policy. Primarily devoted to social reform.
Mahratta	Poona	Do.	Do.	1,250	Democratic Swaraj Party viewpoint.
National Front	Bombay	Do.	Do.	5,000	Communist.
Progress	Do.	Do.	Do.	2,000	Pro-Muslim League.
Rural India	Do.	Do.	Monthly	2,000	Devoted to rural problems and village reconstruction work.
Sunday Standard	Do.	Do.	Weekly	35,000	Previously moderate, but has recently shown strongly nationalist leanings.
Times of India	Do.	Do.	Daily	60,000	Influenced by and influential among leading Indian Liberals. Progressive on all Indian problems. Upholds British viewpoint but not uncritically.
		INDIAN LANGUAGES			
Ajmal*	Do.	Urdu	Do.	3,000	Pro-Congress. Socialist. Influential.

*Has a weekly edition also.

(11053)

CLASSIFICATION CONFIDENTIAL Changed to UNCLASSIFIED

(11053)

Aram	Ahmedabad	Gujarati	Weekly	6,000	Non-political. Deals with social and general subjects.
Asha Pramod	Bombay	Marathi	Do.	11,000	Supports Mr. M.N. Roy's group.
Bharat	Do.	Do.	Daily	5,000	A Hindu Mahasabha paper.
Bharat Samachar	Do.	Gujarati	Do.	5,000	Pro-Congress. Influence fair.
Bombay Samachar	Do.	Do.	(Daily (Weekly	17,000 25,000	Oldest Gujarati Daily in Bombay. Moderate with Congress leanings.
Chitramaya Jagat	Poona	Do.	Monthly	3,000	Pro-Congress. Influential. Has a Marathi monthly edition (5,000 copies) also.
Deshi Mitra	Surat	Do.	(Daily (Weekly	3,500 2,000	Pro-Congress. Influence fair.
Dhanurdhari	Bombay	Marathi	Weekly	11,000	Pro-Congress
Dnyan Prakash	Bombay	Do.	(Daily (at Poona (and (at Bombay (Weekly	5,000 10,000 2,500	Moderate. Influential. Organ of the Servants of India Society.
Girni Samachar	Do.	Do.	Monthly	10,000	Labour. Publishes news of interest to mill hands. Influence good.
Gujarat	Surat	Gujarati	Daily	3,500	Moderate. Influence fair.
Gujarati	Bombay	Do.	Weekly	8,000	Pro-Congress. Pro-Hindu. Influence good.
Gujarat Mitra and Gujarat Darpan	Surat	Do.	Daily	1,500	Pro-Congress. At times independent. Influence good.
Gujarat Samachar	Ahmedabad	Do.	Do.	12,000	Pro-Congress. Influence good.
Hamdard	Surat	Do.	Weekly	1,300	Pro-Muslim League. Anti-Congress
Harijan Bandhu	Poona	Do.	Daily	3,500	Devoted to the cause of the Harijans in particular Pro-Congress. (Has temporarily suspended publication.)
Hilal-e-Nau	Bombay	Urdu	Do.	8,000	Pro-Congress.
Insaf	Do.	Gujarati	Weekly	1,200	Pro-Muslim League.
Janata	Do.	Marathi	Do.	3,000	Advocates the cause of "Untouchables". Influential. A strong critic of the Congress.

CLASSIFICATION
Changed to
UNCLASSIFIED

Jang	Bombay	Urdu	Weekly	..	...
Janmabhumi	Do.	Gujarati	Daily	16,000	Pro-Congress. A strong advocate of the cause of Indian States' subjects. Influential.
Karnatak Bandhu	Gudag (Dharwar)	Kannada	Weekly	11,000	Pro-Congress. Influential.
Kesari	Poona	Marathi	Bi-weekly	15,000	Democratic Swaraj Party viewpoint. Opposed to the Congress. Leading Marathi paper.
Khilafat	Bombay	Urdu	Weekly	3,000	See remarks against daily.
Kom Sevak	Do.	Gujarati	Do.	3,000	Moderate. Deals with matters pertaining to the Parsi Community from the orthodox point of view. Influence fair.
Lokamanya	Do.	Marathi	Daily	12,000	Extreme Congress with leanings towards Hindu Mahasabha.
Lokashakti	Poona	Do.	Daily / Weekly	8,000 / 3,000	A Congress organ, extremist in tone. Influence fair.
Matrubhumi	Bombay	Gujarati	Daily	5,000	Pro-Congress. Influence fair.
Majur Sandesh	Ahmedabad	Do.	Weekly	13,500	Pro-Congress. Influence fair. Organ of the Ahmedabad Labour Union.
Mauj	Bombay	Marathi	Do.	7,000	Supports the Hindu Mahasabha.
Muslim Gujarati	Surat	Gujarati	Do.	3,000	Pro-Muslim League. Highly communal. Influence fair.
Nagarik	Bombay	Marathi	Daily	10,000	Moderate. Critic of the Congress.
Navsaurashtra	Ahmedabad	Gujarati	Weekly	5,000	Pro-Congress. Influence fair.
Nava Kal	Bombay	Marathi	Daily / Weekly	10,000 / 5,000	Pro-Congress. Socialist.
Navarachna	Ahmedabad	Gujarati	Monthly	2,200	Publishes topics of general interest. Influence fair.
Navrashtra	Bombay	Hindi	Daily	5,000	Pro-Congress. Interested in Hindi and the Arya Samaj.
Nav Prakash	Do.	Gujarati	Weekly	1,000	Moderate. Organ of the Sanatanist Hindus. Influence fair.

(11053)

Phul Chhab	Ranpur (Ahmedabad)	Gujarati	Weekly	7,700	Pro-Congress with Socialist leanings. Deals mainly with Indian States affairs. Influence fair.
Prabhat	Ahmedabad	Do.	Daily	6,000	Non-political. Publishes news only.
Prabhat	Bombay	Marathi	Do.	8,000	Follows the Kesari School. Moderate.
Prabhat	Poona	Do.	Do.	6,500	Follows the Kesari School. Moderate.
Praja Bandhu	Ahmedabad	Gujarati	Weekly	6,200	Pro-Congress. Influence good.
Prakash	Bombay	Marathi	Do.	7,000	Pro-Congress. Right-Wing.
Prakash	Surat	Gujarati	Daily	2,500	Independent. Contains general news and cotton figures. Influence fair.
Pratap*	Do.	Do.	Daily Weekly	2,000 1,500	Pro-Congress. Influence fair.
Pravasi	Bombay	Do.	Weekly	5,000	.Pro-Congress.
Rozana-e-Khilafat	Do.	Urdu	Daily	4,000	Organ of the Central Khilafat Committee. Advocates extremist political views. Champion of Muslim communal rights. A strong critic of the Congress. Has considerable influence among the Muslims.
Rozgar	Ahmedabad	Gujarati	Do.	4,500	Pro-Muslim League.
Sakal	Poona	Marathi	Daily Weekly	8,000 6,000	Pro-Congress. Influential.
Samyukta Karnatak	Hubli	Kanarese	Daily	5,000	Pro-Congress. Influential.
Sandesh	Ahmedabad	Gujarati	Do.	15,000	Pro-Congress. At times independent. Influence fair.
Sandhyakal	Bombay	Marathi	Do.	5,000	Pro-Congress.
Shri Venkatesawar Samachar	Do.	Hindi	Weekly	5,000	Pro-Congress.
Tarun Bharat	Belgaum	Marathi	Do.	2,000	Pro-Congress. Highly influential. Extremist.
Udaya	Bijapur	Kannada	Daily Weekly	1,200 1,000	Pro-Congress. Influence fair.

*Has a weekly edition also.

-831-

CLASSIFICATION ~~CONFIDENTIAL~~ Changed to UNCLASSIFIED

CLASSIFICATION
Changed to
UNCLASSIFIED

Vividh Vritta	Bombay	Marathi	Weekly	15,000	Moderate. Has some influence.
		BI-LINGUAL			
Dinabandhu	Poona	Marathi-Hindi	Weekly	4,500	Pro-Congress.
Gujarati Punch	Ahmedabad	Anglo-Gujarati	Do.	3,000	Deals with political and social subjects. Moderate in tone. Influence good.
Gujarat Mitra and Gujarat Darpan	Surat	Do.	Do.	4,500	Pro-Congress. At times independent. Influence good.
Ismaili	Bombay	Do.	Do.	4,000	Represents the viewpoint of Khoja Ismaili Community. Moderate.
Jam-e-Jamshed	Do.	Do.	Daily	7,000	Moderate in tone and anti-Congress; took a keen interest in Nariman-Patel dispute. Generally a strong critic of Government's financial policy. Deals with Parsi questions and current topics. Influence good.
Kaiser-i-Hind	Do.	Do.	Weekly	17,000	Generally Pro-Congress. Interested in the Parsi community. Influential.
Rathestar	Do.	Do.	Do.	5,000	Pro-Congress. At times independent.
Sanj Vartaman	Do.	Do.	Daily	9,000	Pro-Congress. Influence good.
		TRI-LINGUAL			
Al-Islah	Do.	Anglo-Urdu and Gujarati	Weekly	2,500	Moderate. Deals with Islamic and political matters.
BARODA STATE		INDIAN LANGUAGES			
Bharat	Baroda	Gujarati	Weekly	2,000	Criticises Government policy.

(1155)

Gram Jiwan Sahakar and Kheti	Baroda	Gujarati	Monthly	2,200	Interested in agricultural and other subjects.
Prajamandal Patrika	Do.	Do.	Do.	5,000	Criticises Government measures. Organ of the State Praja Mandal.

BI-LINGUAL, ETC.

Jagriti	Do.	Gujarati-Marathi	Weekly	1,900	...
Nava Gujarat	Do.	Gujarati-English Marathi and Hindi	Do.	3,500	Criticises Government policy.
Sharda	Do.	Gujarati-Hindi-English	Monthly	1,500	Discusses social topics.
Shree Sayaji Vijaya	Do.	Gujarati-English	Bi-weekly	6,500	Moderate and influential.

BHAVANAGAR STATE — INDIAN LANGUAGE

Bhavanagar Samachar	Bhavanagar	Gujarati	Fortnightly	2,000	...

KOLHAPUR STATE — INDIAN LANGUAGE

Pudhari	Kolhapur	Marathi	Daily	2,000	Moderate.
Samaj	Do.	Do.	Weekly	1,000	Moderate.
Satyavadi	Do.	Do.	Do.	2,000	Moderate.

RAJKOT STATE — INDIAN LANGUAGES

Jay Shaurashtra	Rajkot Civil Station	Gujarati	Weekly	3,000	Moderate.

CONFIDENTIAL
CLASSIFICATION Changed to UNCLASSIFIED

(11053)

The Kathiawar Times	Rajkot Civil Station	Anglo-Vernacular	Bi-weekly	800	Moderate.
SANGLI STATE		INDIAN LANGUAGES			
Vijaya	Sangli	Marathi	Weekly	600	Critical of present administration of States.
		BI-LINGUAL			
Vishwas	Do.	Marathi-English	Do.	500	Critical of present administration of States.
SAWANTWADI STATE		INDIAN LANGUAGE			
Wainateya	Sawantwadi	Marathi	Weekly	1,000	Moderate.

CONFIDENTIAL
CLASSIFICATION Changed to UNCLASSIFIED

~~CONFIDENTIAL~~

Section IV

POLITICAL

CLASSIFICATION
Changed to
UNCLASSIFIED

27. General.

At this time (November 1942) Bombay is one of the most politically agitated sections of India. The All-India Congress Committee met there in August 1942 and adopted a resolution proposed by its Working Committee which demanded immediate recognition of India's independence under threat of mass civil disobedience. The government of India rejected the demand and at once arrested the principal Congress Party leaders throughout India. The chief of these were M.K. Gandhi, who has since been confined at the Agha Khan's palace in Poona, and Maulana Abul Kalam Azad, president of the Congress, and Jawaharlal Nehru, whose place of confinement has not been announced.

The government's action did not prevent all demonstrations. Numerous outrages and several riots took place, especially in Bombay city. Large strikes occurred in the cotton-milling industries of Bombay city and Ahmadabad, in which latter city the workers have only just returned to work. Other areas were affected, such as Sholapur, another milling center, in the southern part of the Bombay province.

Bombay's politics are well controlled by Congress. It formed the ministry after the 1937 elections, and its ministry resigned in November 1939 as a protest against the Governor General's action of declaring India in the war without consulting the Legislative Assembly. Since then Bombay has had no ministry and the Governor has had to rule with the aid of a council of three advisers.

In the Indian (native) States of Western India there has been relatively little disturbance in connection with the current crisis. The chief demonstrations reported have been in Baroda.

In Portuguese India there is apparently no activity directed against the government of India or the cause of the United Nations.

CLASSIFICATION
Changed to
UNCLASSIFIED

Toward America sentiment is generally favorable, though there is considerable criticism of our failure to declare for Indian nationalism. No pro-Axis sympathy or fifth column activity in the area has been reported. American troops landing in Bombay will meet no direct hostility from the Indians. They may, however, feel the effects of the recent anti-British activities. Should these be renewed, our troops might be seriously embarrassed by the interruption of communications and the necessity for restricting movement in order to avoid becoming involved in the demonstrations.

With the nationalist movement checked but not killed, such demonstrations may easily break out again with very little advance warning. The political leaders have support from the wealthy industrialists, who are generally in favor of Indian independence. The political situation is therefore unstable and unpredictable, and any American military plans connected with Western India should take that fact into account.

CLASSIFICATION
Changed to
UNCLASSIFIED

~~CONFIDENTIAL~~

28. Government.

The area covered in this survey contains: (a) one Governor's province, Bombay (from which Sind has now been separated according to the 1935 constitution); (b) the first class Indian (Native) State of Baroda; (c) the Gujarat States; (d) Kolhapur and the Deccan States; (e) the Western India States; and (f) the Portuguese colonies of Goa, Daman, and Diu, known collectively as Portuguese India.

Bombay, a Governor's province, is administered by a Governor appointed by the British Crown, who by the constitution normally has a council of seven ministers to aid and advise him in all matters except those in which the Government of India Act requires him to use his own discretion. This distinction is according to the principle of "dyarchy" prevailing in the government of the provinces throughout British India. Under it certain subjects considered to be of the first importance are "reserved" for decision by the Governor-in-Council. These reserved matters include law and order, land revenue, finances, and canals. Lesser subjects, such as agriculture, education, public health, etc., are "transferred" to the provincial legislative assemblies. The Ministers are appointed and dismissed by the Governor, but are responsible to the Legislature.

The Governor is assisted in the administration of the province by officers of the Indian Civil Service. The province is divided into divisions, which are subdivided into districts and are administered by Commissioners, Collectors, and Magistrates. Police, education, health, forestry, and the excise are handled by special provincial services, subject to the Governor-in-Council. The Governor may in his discretion veto acts he considers undesirable, and in addition is permitted to certify legislation refused by the legislature but deemed essential by him and to enact temporary ordinances. In case government by ministry fails, the Governor is empowered under Section 93 of the Government of India Act to govern by executive order.

CLASSIFICATION
Changed to
UNCLASSIFIED

~~CONFIDENTIAL~~

28. Government.

The area covered in this survey contains: (a) one Governor's province, Bombay (from which Sind has now been separated according to the 1935 constitution); (b) the first class Indian (Native) State of Baroda; (c) the Gujarat States; (d) Kolhapur and the Deccan States; (e) the Western India States; and (f) the Portuguese colonies of Goa, Daman, and Diu, known collectively as Portuguese India.

Bombay, a Governor's province, is administered by a Governor appointed by the British Crown, who by the constitution normally has a council of seven ministers to aid and advise him in all matters except those in which the Government of India Act requires him to use his own discretion. This distinction is according to the principle of "dyarchy" prevailing in the government of the provinces throughout British India. Under it certain subjects considered to be of the first importance are "reserved" for decision by the Governor-in-Council. These reserved matters include law and order, land revenue, finances, and canals. Lesser subjects, such as agriculture, education, public health, etc., are "transferred" to the provincial legislative assemblies. The Ministers are appointed and dismissed by the Governor, but are responsible to the Legislature.

The Governor is assisted in the administration of the province by officers of the Indian Civil Service. The province is divided into divisions, which are subdivided into districts and are administered by Commissioners, Collectors, and Magistrates. Police, education, health, forestry, and the excise are handled by special provincial services, subject to the Governor-in-Council. The Governor may in his discretion veto acts he considers undesirable, and in addition is permitted to certify legislation refused by the legislature but deemed essential by him and to enact temporary ordinances. In case government by ministry fails, the Governor is empowered under Section 93 of the Government of India Act to govern by executive order.

CLASSIFICATION
Changed to
UNCLASSIFIED

CONFIDENTIAL

The Bombay legislature consists of two houses, the Legislative Council and the Legislative Assembly.

The Council is a permanent body, which contains not less than 29 and not more than 30 members, of whom not less than three and not more than four are nominated by the Governor. Twenty members are elected by the general (Hindu) constituency, five by Muslims, and one by Europeans.

The Assembly, which is elected for five years, has 175 members, divided as follows:

General (Hindu)	114
including	
Scheduled castes	(15)
Marathas	(7)
Backward tribes	1
Muslims	29
Anglo-Indians	2
Europeans	3
Indian Christians	3
Commerce and Industry	7
Landholders	2
University	1
Labor	7
Women	
General (Hindu)	5
Muslim	1

The right of franchise is determined by qualifications of property, education, position held in civil or military service, or honors received from the government. The franchise for the Legislative Assembly includes only about 19 percent of the population, while for the Legislative Council, which has higher qualifications, it is less than 10 percent. According to the principle of "communal representation," the electorate is divided into a number of mutually exclusive constituencies. There is a "general" constituency, corresponding to the Hindu community, which group is the majority, and a number of special constituencies, representing religious or special interests. In Bombay the most important of these special constituencies is the Muslim.

CLASSIFICATION
Changed to
UNCLASSIFIED

CONFIDENTIAL

The ministry resigned in December 1939 in protest against the government of India's action in declaring India in the war without giving the Indian legislature an opportunity to vote on the matter.

The present Governor and his advisers are the following:

Governor: H.E. Sir Lawrence Roger Lumley,
G.C.I.E., T.D.

Advisers to the Governor:

J.A. Madan, C.S.I., C.I.E., I.C.S.
H.F. Knight, I.C.S., C.I.E., C.S.I.
C.F. Bristow, C.I.E., I.C.S.

The officers of the legislative chambers are:

The Hon. Mr. Ganesh Vasudeo Mavlankar, B.A., LL.B.,
Speaker, Legislative Assembly.

Narayanrao Gururao Joshi, Deputy Speaker, Legislative
Assembly.

Hon. Mr. Mangaldas Mancharam Pakvasa, President
of the Legislative Council.

Ramachandra Ganesh Soman, Deputy President,
Legislative Council.

Local Government in Bombay Province.

Local government is administered by three Commissioners, the Commissioner for the Northern Division with headquarters at Ahmadabad, the Commissioner for the Central Division at Poona, and the Commissioner for the Southern Division at Belgaum. Each local district is under a Collector, who has several Deputy and Assistant Collectors under him. Each collectorate contains on the average from eight to ten subdivisions or talukas, which themselves consist of from 100 to 200 villages. According to the ryotwari system prevailing in Bombay Province, each village has a headman or patel who is the responsible head for both revenue and police purposes. Other village officials are the clerk and accountant, called talati or kulkarni, the messenger, and the watchman. Each group of villages is presided over by a subordinate magistrate or mamlatdar. A Deputy or Assistant Collector is usually in charge of

CLASSIFICATION
Changed to
UNCLASSIFIED

CONFIDENTIAL

three to four talukas. The Collector or Magistrate is over the whole district. The Commissioners in their turn exercise general control over the districts in their divisions. Within the district local control is exercised by a local board which exercises authority over a taluka, or by a municipality, which latter has jurisdiction over a city or town. Both the local boards and the municipalities are composed partly of members appointed by the government and partly of members elected by the people. The local boards are empowered to spend funds at their disposal for education, sanitation, the construction of roads and tanks, general improvements, etc. The tendency in recent years has been to increase the elective elements and reduce the number of appointed members of these local boards and municipalities.

The Municipal Boroughs Act of 1925 regulates municipal administration in the larger cities of Bombay province. There are now 27 larger municipalities styled municipal boroughs. The municipal franchise is exercised by occupiers of dwellings or buildings with annual rental values of Rs.12 or with capital value of not less than Rs.200.

Judicial System.

The administration of justice in the province of Bombay is entrusted to lower civil courts, called Courts of First Instance which are presided over by Subordinate Judges; Courts of First Appeal presided over by a District or Assistant Judge or a First Class Subordinate Judge with special powers; and the High Court of Bombay which consists of a Chief Justice and nine puisne judges. District and assistant judges are either Indian civilians, barristers, or members of the provincial service. The Chief Justice of the High Court must be a barrister, while the puisne judges in that court may be Indian civilians, barristers, or Indian lawyers. In addition to these courts, special magistrates exercise summary jurisdiction in some of the principal cities. The city of Bombay, for instance, has six (special)

CLASSIFICATION
Changed to
UNCLASSIFIED

CONFIDENTIAL

magistrates, and in addition some honorary magistrates exercising a similar function to that of justices of the peace in England. There is also a Court of Small Causes in Bombay city, which corresponds to an English county court. In general, District and Assistant Judges exercise criminal jurisdiction throughout the province, but Executive District Officers, Resident and City Magistrates may initiate criminal procedure within the limits of their territory. Appeals may be made to the High Court in all cases exceeding Rs. 5,000 in value, and all capital sentences are subject to confirmation by the High Court.

Civil law is in general based on English common law and Indian legal codes of pre-British times. On most subjects it applies alike to all the population, but laws concerning marriage, divorce, and inheritance vary according to the religion of the defendant.

In the Indian States covered in this survey, authority is vested in the hereditary ruler who theoretically is an autocrat within his own borders, subject to no interference from the government of India, but he is required to conduct all his relations with Indian provinces or other Indian States through the government of India as the paramount power. The government of India, in its turn, details a political officer called a Resident to the court of the autocrat, who not only maintains suitable relations with that prince, but also, in spite of theory, plays a very considerable role in the control of the states' internal and external affairs. Local administration within the Indian States is assimilated to a considerable degree to that of British India. In the best organized states, courts operate along the lines of those in British India, while the police system is also modelled on that in the provinces.

The most important state in the area is that of Baroda, situated partly in Gujarat proper and partly in Kathiawar. The capital city is Baroda. The area of Baroda State is 8,164 square miles and it has a population (1941) of 2,855,010, of which about 90 percent

CLASSIFICATION
Changed to
UNCLASSIFIED

CONFIDENTIAL

is Hindu. The present ruler of Baroda is His Highness Farzandi-i-Khas-i-Dowlat-i-Englishia, Maharaja Sir Pratap Singh Gaekwar, Sena Khas Kel, Samsher Bahadur, G.C.I.E., who ascended the throne in 1939. The state of Baroda, which prides itself on its modern institutions, is administered by an Executive Council consisting of the Dewan or Prime Minister and three ministers subject to the control of the Maharaja. There is also a Legislative Council consisting of nominated and elected members. One of the Ministers is appointed from among the non-official members of Legislative Council. A number of departments have been formed which are presided over by officials corresponding to those in British India. The state of Baroda is divided into five Prants or districts and 42 sub-districts called Mahals and Peta Mahals. The ryotwari system of tax assessment is in force throughout the state of Baroda.

On the judicial side, the High Court of Baroda (Varisht) possesses jurisdiction over the whole state and is also the final court of appeal, though appeals from its decisions may be made to the Maharaja. There are also district and subordinate courts similar to those in British India.

The British Resident at Baroda is also in charge of a separate political agency designated as the Gujarat States Agency. The following are the full powered "salute" states(states of sufficient importance for their rulers to receive a military salute in British India) now in direct political relation with the government of India through the Resident for Baroda and the Gujarat States:

Balasinor (189 sq. miles and population 52,525), ruled by Nawab Babi Shri Jamiatkhanji Manvarkhanji.

Bansda (215 sq. miles and population 54,764) ruled by Maharawalji Shri Sir Indrasinji Pratapsinji, K.C.I.E.

Baria (813 sq. miles and population 189,206), ruled by Lt. Col. His Highness Maharaval Shri Sir Ranjitsinji, K.C.I.E.

CLASSIFICATION
Changed to
UNCLASSIFIED

~~CONFIDENTIAL~~

Cambay (392 sq. miles and population 87,761) ruled by His Highness Najam-ud-Daulah Mumtaz-il-Mulk Mominkhan Bahadur Dilaverjung Nawab Mirza Husain Yaver Khan Saheb Bahadur.

Chota Udepur (890 sq. miles and population 144,640), ruled by His Highness Maharawal Shri Natwarsinhji.

Dharampur (704 sq. miles and population 112,031) ruled by His Highness Maharana Shri Vijaydevji Mohandevji.

Jawhar (308 sq. miles and population of 57,261) ruled by His Highness Raja Patangshah.

Lunawada (388 sq. miles and population 95,162) ruled by Lt. Maharana Shri Virbhadrasinhji Ranjitsinhji.

Rajpipla (1,517½ sq. miles and population 206,085) ruled by Major His Highness Maharana Shri Sir Vijaysinhji Chhatrasinhji, K.C.S.I.

Sachin, ruled by His Highness Nawab Sidi Mohammed Haider Mohammed Yakut Khan, Mubarizud Daula Nusrat Jung Bahadur.

Sant (394 sq. miles and population 8,353), ruled by Maharana Shri Jorarwarsinhji Pratapsinhji.

The Political Agent at Baroda is also responsible for the Rewa Kantha Agency which is a sub-division of the Gujarat States Agency. It consists of all the non-salute states and states of the old Rewa Kantha Agency, the state of Surgana, and the petty states known as the Dangs. Many of these states and estates are small and only a few enjoy restricted jurisdictional powers. The total number is 70. Of the Gujarat States, Lunawada and Rajpipla are perhaps the most important economically, the former having fine patches of good agricultural land and valuable timber, the latter possessing a rich and fertile soil. Rajpipla also has the largest revenue.

The Resident at Kolhapur is responsible for the political relations of the government of India with Kolhapur itself and the Deccan

CLASSIFICATION
Changed to
UNCLASSIFIED

~~CONFIDENTIAL~~

States. Of these Kolhapur is decidedly the most important economically and financially.

The Kolhapur and Deccan States Agency includes 17 states, of which the following are the most important:

Kolhapur (3,217 sq. miles and population 957,137), throne vacant.

Sawantwadi (930 sq. miles and population 252,170) ruled by His Highness Raja Bahadur Shivram Sawant Shrimanti Bhonsle with Her Highness Rani Parwatibaisayeb Bhonsle as Regent.

Janjira (379 sq. miles and population 110,388) ruled by His Highness Nawab Sidi Muhmmad Khan Siki Ahmad Khan.

Mudhol (369 sq. miles and population 62,832) ruled by Raja Shrimant Bhairavsingh Malojirao Raje Ghorpade.

Sangli (1,136 sq. miles)and population 258,442) ruled by Captain His Highness Raja Shrimant Sir Chintamanrao Dhundirao, K.C.I.E.

Bhor (910 sq. miles and population 141,546) ruled by Raja Shrimant Raghunathrao Shankarrao, Pandit Panti Sachiv, K.C.I.E.

These are "salute" states. Other states in the Kolhapur and Deccan Agency are Jamkhandi, Phaltan, Jath, Miraj (senior and junior), Kurandwad (senior and junior), Ramdurg, Aundh, Akalkot, Savanur. There is also an estate called Wadi Estate.

Kolhapur ranks with the most progressive states in educational, industrial and social progress and also contains important aluminum and bauxite deposits.

The Western India States Agency contains salute states in political relation with the Resident, non-salute states in relation with the political Agents of the subordinate agencies, and also a great number of small administrative areas and petty estates known as Thanas. The Thanas were formerly offshoots of larger states but have become so subdivided as to render impracticable normal administration by individual holders. This has necessitated the administration of these territories

CLASSIFICATION
Changed to
UNCLASSIFIED

on behalf of their owners by the Political Agency itself. The total number of States is 284, of which 17 are "salute" states.

The headquarters of the Western India States Agency is at Rajkot. There are three subordinate agencies, the Western Kathiawar Agency, with headquarters at Rajkot and comprising 47 non-salute jurisdictional states and four Thana circles. The Eastern Kathiawar Agency, with headquarters at Wadhwan contains 15 non-salute jurisdictional states and Talukas and 7 Thana circles. The Sabar Kantha Agency with headquarters at Sadra contains 44 jurisdictional non-salute states and 8 Thana circles. The salute states in the Western States Agency are as follows:-

Bhavnagar (2,961 sq. miles and population of 500,274) ruled by Lieutenant His Highness Maharaja Shri Sir Krishna Kumarsinhji Bhavsinghi, K.C.S.I.

Cutch (8,249 sq. miles and population of 514,307) ruled by His Highness Maharaja Dhiraj Mirza Maharao Shri Sir Khengarji Savai Bahadur, G.C.S.I., G.C.I.E.

Dhrangadhra (1167 sq. miles and population of 88,961) ruled by Major His Highness Maharaja Shri Sir Ghanshyamsinhji Ajitsinhji G.C.I.E., K.C.S.I.

Dhrol (282 sq. miles and population of 27,639) ruled by Thakor Saheb Shri Jorawarsinhji Dipsinhji.

Gondal (1024 sq. miles and population of 205,846) ruled by His Highness Maharaja Shri Sir Bhagvatsinhji Sagramji, G.C.S.I., G.C.I.E.

Idar (1,669 sq. miles and population of 262,660) ruled by His Highness Maharaja Shri Himatsinhji Dowlatsinhji.

Jafrabad (Janjira) (53 sq. miles and population of 12,083) ruled by His Highness Nawab Sidi Muhammad Khan Sidi Ahmad Khan.

CLASSIFICATION
Changed to
UNCLASSIFIED

~~CONFIDENTIAL~~

Junagadh (3,337 sq. miles and population of 545,152) ruled by Captain His Highness Nawab Sir Mahabat Khanji Rasulkhanji, G.C.I.E., K.C.S.I.

Limbdi (343 sq. miles and population of 40,688) ruled by Thakor Saheb Shri Sir Davlatsinhji Jaswatsinhji K.C.S.I., K.C.I E.

Morvi (822 sq. miles and population of 113,023) ruled by His Highness Maharaja Shri Sir Lahdhirji Waghji, K.C.S I.

Nawanagar (3,701 sq. miles and population of 402,192) ruled by Lt. Colonel His Highness Maharaja Jam Shri Sir Digvijaysinhji Ranjitsinhji Jadeja , G.C.I.E., K.C.S.I., A.D.C.

Palitana (300 sq. miles and population of 62,150) ruled by Thakor Saheb Shri Sir Bahadursinhji Mansinhji, K.C.S.I., K.C.I.E.

Porbandar (642 sq. miles and population of 115,673) ruled by His Highness Maharaja Shri Sir Natvarsinhji Bhavsinhji, K C.S.I.

Radhanpur (1,150 sq. miles and population of 70,530) ruled by His Highness Nawab Murtaza Khan Jorawar Khan Babi.

Rajkot (282 sq. miles and population of 75,540) ruled by Thakor Saheb Shri Dharmendrasinhji.

Of the 267 non-salute states with Western States Agency perhaps the most important is Vijayanagar (135 sq. miles and population of 8,491) ruled by Rao Shri Hamirsinhji Hindusinhji.

Of the Western India States Bhavnagar is probably the most important. One of the noteworthy features of its administration is the complete separation of judicial and executive functions and the decentralization of authority. Cutch is peculiar for the privileged place assigned in the administration to the 137 Bhayat or Rajput nobles.

The Portuguese possessions in India, all of which are situated within the limits of Bombay province, consist of the province of Goa on the Arabian Sea coast, the territory of Daman, the small territory of Pragana-Nagar on the Gujarat coast, and the small island of Diu on the southern tip of the Kathiawar peninsula. These possessions the Portuguese call the State of India.

CLASSIFICATION
Changed to
UNCLASSIFIED

CONFIDENTIAL

Portuguese India is ruled by a Governor General residing at the capital city of Panjim or Nova Goa. There are three subordinate districts, Goa, Daman, and Diu. The last two are under the jurisdiction of Lieutenant Governors, while the district of Goa is under the direct control of the Governor General. There is a secretariat assisting the Governor General in Home and Political Affairs, Customs, Education, Military Affairs, etc. The principal organ of administration next to the Governor General is the Governor's Council (Conselho do Governo) which consists of four appointed officials, five elected members from the different districts, and five members appointed by the Governor General to represent the minorities, agricultural and commercial interests as well as the press. This allocation of seats to the various professions and occupations reflects the Portuguese emphasis on a semi-corporative state which is so marked a feature of present-day Portugal. It is present to an even greater degree in the organization of the District Councils of Goa, Daman, and Diu, which supervise municipalities and other local institutions. The District Councils are composed of several officials of the local government as well as members elected by the Commercial and Industrial Associations of the district, the taxpayers, the Associations of Landowners, etc.

There is a High Court of Justice for the State of India with five judges and an Attorney-General. Courts of Justice and Municipal Courts of Justice have also been established at various centers. It is notable that the Governor has wide disciplinary powers over all public servants, subject to the right of appeal to the courts.1/

1/ This paragraph is based on (a) The Indian Year Book, 1941-42, vol. XXVIII, Calcutta, 1941, and (b) Memoranda on the Indian States, 1939, New Delhi, 1939.

(11053)

CLASSIFICATION
Changed to
UNCLASSIFIED

~~CONFIDENTIAL~~

29. Political Parties.

The Congress Party is strong in this area. Gandhi is a Gujarati by birth; his doctrines evoke a ready response among the people of the Bombay province. Gandhi's headquarters were for many years at Sabarmati, just outside of Ahmadabad. It was in this region that the famous "march to the sea" was staged; it is here that Congress has won some of its most notable victories. Labor unions are comparatively strong in the cities of the province, and the local Congress organizations are imbued with a labor outlook.

Bombay is also the home and headquarters of Mr. Jinnah, permanent president of the Muslim League. While Muslim League supporters are not numerically strong on the West Coast, some of the wealthier adherents of the League come from Bombay. A group of prominent Muslim League adherents in Bombay sent an appeal to Mr. Jinnah in September 1942, requesting that he help solve the political deadlock among Congress, the Muslim League, and the British. Party factionalism is less bitter and divisive in Bombay (and in Madras as well) than in other provinces.

Many of the distinguished liberals of India--Sir Tej Bahadur Sapru, Sir Cowasji Jehangir, and others--hail from Bombay. Their party, the National Liberal Federation, commands respect and can always get a hearing in the press. It is, however, a party of leaders without much following. While its spokesmen issue a steady stream of notes and memoranda, their recommendations have slight effect on the course of political affairs.

Two sections of the Bombay province have been centers of nationalistic activity. These are Poona, in the Maratha county, southeast of Bombay City, and Gujarat in the north. A statement concerning activity there appears in the Survey of India, paragraph 29.

CLASSIFICATION
Changed to
UNCLASSIFIED

CONFIDENTIAL

It was in Poona that extreme Indian nationalism first appeared under the leadership of B.G. Tilak (1856-1920). Tilak was a learned Chitpavan Brahman who combined a deep knowledge of Hindu literature with an ambition to revive the ancient glories of the Brahman Peshwa dynasty. In his early days he did not envisage a united independent India--at one time he refused to recognize Muslims as his fellow countrymen. But later he developed into the personification of extreme nationalism. To him the English were always the enemy, and from the first he strove to develop a war mentality among his followers. Within Bombay Tilak was a remarkable organizer who founded a successful newspaper, established gymnastic societies, and fostered the cult of Sivaji, the warrior leader of the Marathas.

Tilak's leadership was shared by G.K. Gokhale (1866-1915), who was interested in the social side of Indian life rather than the Hindu ceremonialism which had been Tilak's preoccupation. While Tilak gave passion and fighting vigor to Indian nationalism in its early stage, Gokhale gave it modern objectives and statesmanship.

Tilak's Home Rule and Gokhale's social reform movement eventually passed under the leadership of Gandhi. On Tilak's death in 1920 Gandhi collected a fund of over ten million rupees, the Tilak Swaraj Fund, which was used to promote nationalist activities.

In the 1937 elections, the latest held in India, Congress won enough seats to dominate the Bombay legislature. The seats secured by each party were;

Legislative Assembly

Congress	86
Muslim League	25
Independents	13
Independent Labour	14
Progress	12
Peasants and Peoples	7
Peasants and Workers	7
Democratic Swaraj	4
Vacant Seats (1941)	7
Total	175

CLASSIFICATION
Changed to
UNCLASSIFIED

~~CONFIDENTIAL~~

Legislative Council (Upper House)

Congress	10
Muslim League	3
Independents	9
Progress	1
Democratic Swaraj	3
Liberal	1
Vacant Seats (1941)	3
Total	30

The smaller parties forwarded the claims of special interests in the electorate. The Peasants and Peoples Party was the local Kisan (peasant workers) group which represented the more articulate and leftist section of the peasant population. The Peasants and Workers Party spoke for labor, especially for the textile workers. The Democratic Swaraj Party opposed all communalism, maintaining that the Indian government should not take official cognizance of communal divisions. The Progressive party was a purely local group.

Most of these smaller parties have disappeared since the resignation of the Congress ministry in Bombay in November 1939, in protest against the government's action of declaring India in the war without allowing the Legislative Assembly to vote on the matter. Their adherents were formerly close to the Congress and in the present situation are almost unanimously sympathetic with Congress.

Political activity within the Indian (native) States of the area is restricted by the disposition of the local princes. In a few of the states, the Congress has attained a considerable following.

Nationalism has a wide base of middle-class support in Bombay. The industrial magnates of the province, such as Birla and Hirachand, give of their time and funds to the Independence movement; the peasant organizations are strong for swaraj; the trade unions are ardent adherents of the Congress cause; even the commercial and professional classes add to Congress strength in Bombay. It is generally understood that the industrialists helped along the

CLASSIFICATION
Changed to
UNCLASSIFIED

~~CONFIDENTIAL~~

strike which followed the arrest of Congress leaders in August 1942, interfered with the operations of the mills for periods varying from two to seven weeks or more.

CLASSIFICATION
Changed to
UNCLASSIFIED

~~CONFIDENTIAL~~

30. Foreign Policy and International Relations.

In this area, as in the rest of India, the foreign policy is that of the government of India; the provinces and the Indian States have no direct relations with foreign countries.

Although Bombay has no foreign policy of its own, the Portuguese colonies of Goa, Daman, and Diu, embedded as they are within the province, present problems of greater concern to Bombay than to other parts of India. Daman is little more than a single antiquated fortress and Diu a small island, but Goa is a considerable territory around a fine harbor. The total population of the three is 579,970.

Goa covers 1,301 square miles. The languages used are Portuguese and the Konkani dialect of Marathi. Since the establishment of the dictatorship in Portugal, the government of Goa has been centralized and provincial autonomy reduced. All important fiscal and administrative acts require the sanction of the Lisbon government. A press law severely controls the press and imposes heavy penalties on all newspapers which do not adhere to the letter of the law.

Although Goa is economically dependent on India and must maintain cordial relations with the Indian government, it has independent communications with Portugal. Goa is the largest enclave of non-British territory on the subcontinent of India and presumably affords a haven for Axis agents.

Goanese have migrated to all parts of India, finding employment chiefly as domestic servants. About half are Roman Catholics; the rest are Hindu.

Neither the Goanese nor any of the other inhabitants of the west coast area are pro-Axis. While a few individuals may turn out to be in the pay of the enemy, the great mass of the people have no desire

CLASSIFICATION
Changed to
UNCLASSIFIED

to aid either Japan or Germany. Internal political difficulties have hampered the war effort and may continue to do so, but it is important to remember that these difficulties do not arise from any desire to abet the enemy.

CLASSIFICATION
Changed to
UNCLASSIFIED

~~CONFIDENTIAL~~

Section V

ECONOMIC

31. General.

The economy of all sections of India is based upon the land. In Western India about two-thirds of the workers are engaged in agriculture and allied pursuits. Yet Bombay province is the most urbanized, if not the most industrialized, province in India. Bombay and the Western India States have hundreds of miles of coastline, and possess the great port city of Bombay. Trade and commerce, both foreign and domestic, are of great importance. In spite of all this, the impression remains that opportunities have been insufficiently exploited.

Natural resources, aside from the agricultural, are not plentiful. Less than one percent of the workers are engaged in mining. In spite of the geographical position, the fishing industry and shipbuilding industry have both been neglected.

Although Western India has no coal, it has great potential hydroelectric power supplies, especially in Bombay province. Hence the possibilities of industrial development are considerable. Only in the cotton textile industry have these possibilities begun to be realized. Despite an extensive cottage industry, there is no other important factory industry. Moreover, the 1931 Census estimates that in the preceding decade the industrial population declined relatively by five percent.

Bombay city and Ahmadabad are the second and third largest industrial cities in India. They are the center of the cotton mill industry, and in Bombay is also concentrated much of the remaining factory industry of Western India.

(11053)

Number of Workers in Principal Occupations

and Total Workers in All Occupations in Western India*

	Pasture and Agriculture	Fishing and Hunting	Mining	Industry	Transport	Trade	Total in Principal Occupations	Total in All Occupations
Bombay Province	5,798,000	78,000	13,000	1,068,000	213,000	490,000	7,660,000	8,952,000
Bombay States	1,451,000	4,000	1,000	154,000	13,000	72,000	1,695,000	1,915,000
Baroda	886,000	2,000	2,000	139,000	17,000	74,000	1,120,000	1,276,000
Western India States	935,000	2,000	7,000	212,000	39,000	122,000	1,317,000	1,582,000
Western India	9,070,000	86,000	23,000	1,573,000	282,000	758,000	11,792,000	13,725,000
All India	110,759,000	1,030,000	405,000	17,524,000	2,779,000	9,337,000	141,834,000	168,825,000

*These figures are from the 1931 Census, and include Sind.

CLASSIFICATION
Changed to
UNCLASSIFIED

CLASSIFICATION
Changed to
UNCLASSIFIED

~~CONFIDENTIAL~~

The railway network is relatively good, at least as far as connections between the port city, Bombay, and the rest of India are concerned. The Western India States have a fairly good network in Kathiawar. But much of the agricultural population of Western India is served neither by railways nor by motorable roads.

Yet when Western India is compared with India as a whole, rather than with its own potentialities, it takes its place as one of the wealthiest and most progressive parts of India. Since Bengal has suffered a setback due to the threat of invasion, Bombay has been stimulated in both industry and commerce. Unfortunately its facilities are too meager a base for quick expansion. Nevertheless, it has great capacity for a gradual development.

A. Agriculture.

Out of an area of nearly 50 million acres in Bombay province, the area actually under cultivation in 1938 was 29.7 million acres, of which only one million acres bore more than one crop. Of the residue, 9 million acres are in culturable waste land; 8 million acres are in forests, and another 5.7 million acres are reported as not available for cultivation.

In general there are four agricultural areas in Western India:

1. Kathiawar and Cutch; a comparatively barren region where, nevertheless, the bulk of the population is engaged in agriculture.

2. The rich northern area of Gujarat, containing the black cotton soil of Surat and Broach; this grows cotton and jowar in rotation with wheat and a rabi (winter) crop, thus maintaining a balanced economic foundation of food and commercial crops.

CLASSIFICATION ~~CONFIDENTIAL~~
Changed to
UNCLASSIFIED

3. The Deccan; a table-land extending eastward from the ridge of the Western Ghats. This area has black cotton soil also (in Khandesh, Nasik, Ahmadnagar, Sholapur, Bijapur and Dharwar) and grows the cotton-jowar-wheat rotation, or cotton-bajra-wheat if the soil is light. The rainfall, however, is relatively scanty and the yield correspondingly lower. In Poona, which has relatively little rainfall and no black soil, it is lower still. But in the southernmost section, Belgaum and Dharwar, water is more plentiful. Here there is a rich production of cereals, pulses, and cotton, and, in the valleys, rice. Spices, sugar cane, and garden crops are also grown in the irrigated red soils of the hilly south.

4. The Konkan, the narrow coastal plain; this receives heavy rains, has numerous streams, and is therefore the principal rice area. Rice cultivation can support a much denser population than wheat, so that the Ratnagiri District in the Konkan, thickly settled, constitutes a source of labor supply for the industries of Bombay.

Since the rainfall is uncertain, the region is well irrigated, especially in the Bombay Deccan. Wells provide the chief supply, but canals (the Nira, near Poona; the Gokak in the Belgaum District) and tanks, which are artificial lakes and ponds (chiefly in the south), have also been built. It has been estimated that irrigated rice land produces 1,000 to 1,500 pounds per acre; unirrigated, 400 to 800 pounds.

The "ryotwari" system of land tenure prevails in Bombay. A ryot is a small peasant who cultivates his own land--subject, however, to the overlordship of the government, which exacts as land revenue a substantial portion of the produce. In parts of Gujarat, the ryots hold land under Talukdars, who are landlords under the state. Ryots

CLASSIFICATION
Changed to
UNCLASSIFIED
~~CONFIDENTIAL~~

may sublet, and tenancy is on the increase, especially in Konkan. Tenancy is greater still in the Western India States, where the land is poor. Holdings have become exceedingly small, through subdivision among heirs, and a single holding may be further split into sections. Keatinge (Rural Economy in the Bombay Deccan) found that a one-acre field is frequently divided into 8 or 9 plots, each a part of a separate holding. Baroda State for two decades has carried on a program to consolidate holdings.

The government of Bombay supports 22 experimental farms and research stations to carry on various research schemes designed to improve the conditions of agriculture and the economic status of the farmers. The chief centers for soil and irrigation work are the Sugarcane Research Station, Bombay-Deccan, at Padegaon, and the Dry Farming Research Station, Sholapur and Bijapur, for the Deccan "famine areas." Experiments over a period of seven years showed a yield of 1,260 lbs. of millet per acre, as against 741 lbs. under the old methods. Experiments with cotton as a rotation crop with jowar showed an increase in yield of 90 percent. Considerable scientific work is conducted to improve the quality of crops. Research stations for rice are at Karjat, Mugad, Kumpta, and Ratnagiri. These stations are at present concentrating on distribution of improved seed in order to increase the local rice supply in compensation for the loss of Burma rice. A number of projects are under way to increase the yield and ginning percentage of cotton, and particularly to lengthen the staple. These are at Surat, Broach, Viramgam, Jalgaon, and Dharwar. The Cereal Breeding Station, Niphad, has been specializing on improvement of wheat, bajra, and jowar. Improvement of tobacco is studied at Nadiad, for the Gujarat crops, and at Nipani, for the Southern Maratha crops. Experimental work is carried on also for numerous other crops.

CONFIDENTIAL
CLASSIFICATION
Changed to
UNCLASSIFIED

Food Crops.

Jowar and bajra. Western India ranks first in the production of jowar, a millet, growing more than two million tons per annum. This is 33 percent of the total Indian production. Jowar is both a food crop containing more proteins and starch than rice, and a fodder crop. It is a dry crop, grown chiefly in the Deccan where it is an indispensable food. The districts of greatest production are Bijapur, Sholapur, and Poona. The average yield per acre is 670 lbs. of grain plus 1,700 lbs. of fodder.

Western India also ranks first in the production of bajra, another millet, growing more than a million tons per annum or 42 percent of the Indian total. Bajra is superior to jowar as food, though inferior as fodder. It is grown in lighter soils but in the same general area as jowar. The districts of greatest production are Bhavnagar, Nasik, and Ahmadnagar. The yield averages 400 lbs. of grain per acre plus about 1,000 lbs. of straw.

Nineteen million acres, or approximately one-fifth of the total area of Western India, are sown to these crops.

Rice. Western India produces about a million tons of rice, to which it devotes about 10 percent of its total crop area. This, however, represents only four percent of the total Indian production. Since a good supply of water is essential to rice cultivation, it is grown chiefly in the Konkan (coastal plain) where it is the staple crop. The principal districts for its production are Thana, Ratnagiri, and Kolaba. It is also grown in Belgaum and Dharwar districts, where rainfall and soil are appropriate, and to a lesser extent in southern Gujarat. The average yield per acre is 1,200 lbs. of grain and 1,600 lbs. of straw.

CLASSIFICATION ~~CONFIDENTIAL~~
Changed to
UNCLASSIFIED

Wheat. Two and one-half million acres is sown to wheat, and the annual production is about 500,000 tons, representing 4.5 percent of Indian production. Wheat requires a more fertile soil than millet; it is grown as a dry crop on the black soil, or on the lighter soils with irrigation. It is rotated with cotton and jowar, or with linseed and grain. The chief districts of production are Dharwar, Nasik, Ahmadabad, and Bijapur. The average yield per acre is 575 lbs. of grain plus about 850 lbs. of straw.

Minor grain crops. Gram is grown in many districts, but especially in the Deccan. Annual production is about 100,000 tons. When green, the plant is used as a vegetable; when ripe, it is parched or used for dal.

Ragi is grown where the rain is heavy on soil which is too light for rice. The principal ragi districts are Ratnagiri and Nasik. Bombay province produces 18 percent of the British Indian total.

Maize is grown chiefly in Broach and Panch Mahals; in all, 71,000 tons are produced. The yield per acre is 1,200 to 1,500 lbs. of grain.

Other grains grown are barley, oats, and pulses (tur, kulthi, math, and mug).

Groundnuts. Western India produces nearly a million tons of peanuts per annum, or 28 percent of the Indian total. There are about 2.5 million acres sown to this crop. It is both a dry and an irrigated crop, grown chiefly in East Khandesh, Satara, Sholapur, and West Khandesh. The average yield per acre varies from 800 to 1,600 lbs. of unhusked seeds, of which from 65 to 75 percent is kernel. The kernels yield 42 to 50 percent of their weight in oil. This produce is increasingly important in the trade and industry of

CLASSIFICATION ~~CONFIDENTIAL~~
Changed to
UNCLASSIFIED

Bombay. As oil it is used for ghi and other foods and as a raw material for soap. The cake is used for cattle feed and manure, as well as for food.

Other oil-seeds. Western India produces 20 percent of India's castor-seed, 15 percent of her sesamum. This amounts, however, only to 22,000 tons and 59,000 tons respectively. Castor oil is used largely for lighting and lubricating purposes, sesamum for cooking. Linseed (20,000 tons) is used as oil for cooking, for paints and varnishes, and as cake for cattle feed and manure. Rape and mustard (7,000 tons), flaxseed, and safflower are also grown.

Sugar cane. Only about 3 percent of India's sugar cane acreage is found in Western India. It is grown as an irrigated crop, chiefly in Ahmadnagar, Belgaum, and North Kanara.

Tobacco. About 38,000 tons of tobacco, or 8 percent of the Indian total, are produced in Western India, almost entirely in Baroda and the Khaira and Belgaum districts. In the former it is irrigated; in the latter it is a dry crop. It is, however, of poor quality, and some attempts are now being made to grow Virginia tobacco.

Fruits and Vegetables. Both in the area given over to the cultivation of fruits and vegetables and in its share of the total Indian production, Western India ranks low. The districts chiefly responsible for what is produced are Poona, Nasik, Satara, Ahmadnagar, East Khandesh, and Ratnagiri. In Bombay province about 140,000 acres are devoted to vegetables and 62,000 acres to fruit. The chief fruits are bananas, mangoes, limes, and guavas; the chief vegetables are potatoes, sweet potatoes, onions, carrots, radishes, melons, and tomatoes.

Cashew nuts and coconuts are also grown, especially on the southern coast. The former is an important commercial crop.

 CLASSIFICATION ~~CONFIDENTIAL~~
Changed to
UNCLASSIFIED

Spices. Western India grows a large variety of spices, producing about 13 percent of the total Indian product. Chillies, grown largely in the Deccan, head the list; others include ginger, garlic, pepper, betelnuts, tamarind, and turmeric.

Fibers.

Cotton. The most important commercial crop of Western India is cotton. The output is 1,306,000 bales (400 lbs. each) or about one-fourth of the Indian total. More than 6 percent of the area of Western India is devoted to the crop, and it is grown in all parts but the Konkan. The most productive sections are the north with its heavy black soils, and, to a lesser extent, the extreme south. The best variety is "Broach," grown in the Surat and Broach districts of southern Gujarat and elsewhere in the extreme north. "Dholleras," also a good variety, is grown principally in Cutch, Kathiawar, Baroda, Idar, and Ahmadabad. "Oomras," a short-stapled variety, is found in Khandesh, Nasik, Ahmadnagar, Poona, and Sholapur. "Kumpta" and "Upland" grow in the Deccan. As a dry crop, cotton is rotated with both jowar and bajra. The average production is 100 lbs. of lint and 200 lbs. of seed per acre.

Other fibers. Sann fiber, known as Bombay hemp, is grown in many districts, but the best quality comes from Ratnagiri. The acreage under Sann fiber was declining in recent years before the war, but production is doubtless now stimulated by war demands, since the fiber is a substitute for hemp.

Agave is a hedge-plant grown in the Deccan, having a fiber which is used for rope. Coconut fiber is also important; the trees are grown principally in Ratnagiri and Kanara.

CLASSIFICATION
Changed to
~~CONFIDENTIAL~~
UNCLASSIFIED

Crop statistics for Western India, 1938-39:

Crop	Acres	Yield (tons)	Approximate percent of all-India
Jowar	11,433,000	*2,136,000	*33
Bajra	6,801,000	*1,075,000	*42
Rice	2,536,000	989,000	4
Wheat	2,363,000	476,000	4.5
Gram	611,000	*91,000	*3
Maize	173,000	71,000	0.5
Groundnuts (in shell)	2,639,000	924,000	28
Sesamum	613,000	59,000	15
Castor-seed	181,000	22,000	20
Linseed	119,000	20,000	5
Rape and mustard	34,000	7,000	1
Tobacco	206,000	38,000	8
Sugar cane	111,000	**268,000	7
Cotton	6,614,000	233,000	25

*Excluding Baroda
**Raw sugar

Livestock.

Western India, like the rest of India, is overstocked with domestic animals, and the large number does not indicate a correspondingly large source of wealth since the animals are often of poor quality. The ratio of milk-producing cattle and buffaloes to the total is disproportionately small, but non-milk-yielding cattle furnish the chief source of tractive power in agriculture. The following are the figures (1935) for Western India, with the all-India data for comparison:

	Milk cows	Total cattle	Milk buffaloes	Total buffaloes
Western India	2,522,593	10,291,055	1,839,328	3,889,899
All India	10,907,952	42,022,748	4,880,781	12,351,823

Of the cattle in the Bombay province, it has been estimated that 50 percent are maintained simply for manure and that 50 percent of the bullocks are too small for draught animals. Of the annual milk production of 1,250 million lbs., buffaloes produce 80 percent.

CLASSIFICATION
Changed to
UNCLASSIFIED

The total number of sheep and goats in Western India is approximately 6.5 millions out of an Indian total of 34 millions.

Both because of the poor quality of the animals and religious restrictions, they do not represent as important a source of meat as the figures would suggest. However, Bombay is the most important center in India for producing butter and cheese.

General Conditions of Agriculture.

The agricultural population of Western India has gone through a long depression, at first as a part of the general world depression, but later as the result of declining markets in Japan and England for the important crop, cotton. The price index of raw cotton fell from 100 in 1928 to 44 in 1934. S. N. Sen Gupta estimates that the value of agricultural production in Bombay province in 1928-29 was 120 crores of rupees and by 1932-33 had fallen by 30 percent. Since the area under cultivation in India does not vary greatly in size, whatever the prices of the products (in general, farmers cannot increase the area, and will not decrease it), the only practical possibility is to shift from one crop to another.

The serious situation faced by the cotton grower as a result of these developments is alleviated to some extent by an enlarged domestic market. From January to October 1941, the mills consumed 4,230,807 bales of Indian cotton, the high point up to that date. Defense requirements accounted for about 16 percent of this total consumption. A fall in cotton imports due to shipping and other restrictions caused a greater use of home-grown cotton. The government modified its specifications for military clothing to some extent to encourage the use of short staples. In view of the market situation, even a slight improvement in staple is important. In 1938-39, short staples were 63 percent, medium staples 32½ percent, and long staples

CLASSIFICATION ~~CONFIDENTIAL~~
Changed to
UNCLASSIFIED

4½ percent of the total consumption; in 1927-32, 75 percent of the crop was short staple, 25 percent medium, and none long.

The carry-over of cotton has been serious (in August 1941, estimated at 1,750,000 bales, and reported in May 1942, to be 200,000 bales larger than the year before) and has pressed upon storage space, so that in April 1942, the government of Bombay province prohibited the import of raw cotton except under license. (The restriction on the export and import of cotton seed in Bombay city was chiefly to reserve more cars for importation of food.) In January 1942 the Indian Central Cotton Committee advised that the 10 million acres now growing short and fair staple cotton be reduced to 5 million acres so that the output next year would be only 1½ million bales--an amount which could be absorbed in India if the war orders consume 300,000 or 400,000 bales. The central government was urged to accelerate this program, but it left the matter largely to provincial governments. It was estimated that as a result of various measures actually taken, there would be a decrease of 400,000 acres, or approximately 10 percent of normal, in the area under cotton in Bombay province during the coming year. In the summer of 1942 the all-India cotton forecast estimated a reduction of 17 percent from the acreage of the preceding year. The problem for the grower is to find an alternative cash crop. Beginning January 1942, an additional duty of one anna a pound was collected on raw cotton imports, the proceeds being set aside in a relief fund for grower of short staple cotton.

Grading and standardization of products is in its infancy in India. A beginning was made with the Bombay Cotton Markets Act (1927). Later an agricultural Marketing Adviser was attached to the government in Delhi, and similar officers were appointed in the provinces. The

CLASSIFICATION ~~CONFIDENTIAL~~ Changed to UNCLASSIFIED

Agricultural Produce (Grading and Marking) Act was passed in 1937, and an increasing number of products are being graded and sold under the "Agmark"--Rs. 6,100,000 worth in 1939 and Rs. 10,200,000 worth in 1940. In certain cases a price enhanced by 3 to 5 percent was received for certified cotton over the same type uncertified. In 1939 the central government passed a Standards of Weight Act which will gradually be brought into force, and certain quotations of prices and quantities in the Bombay market were broadcast daily. All this marks at least a beginning in the regularization of agriculture as an industry.

B. Mineral Resources.

Western India is not rich in minerals. It has no coal and only slight traces of iron. Among the few important commercial mineral products at present are salt, manganese ore, and building materials.

Salt. In India this mineral is obtained largely from sea water rather than rock deposits. The western coast therefore is an important source, chiefly the Thana and Kolaba districts within thirty miles of Bombay city, and the Rann of Cutch, where there is a government factory at Kharaghoda. Some salt is produced also in Surat, Ratnagiri, and Kanara districts. In 1938 Bombay's output was 400,000 tons, more than one-fourth of the total production of all India. India is not, however, self-sufficient in salt.

Manganese. Manganese ore is found chiefly in the Panch Mahals, and to a lesser extent in Dharwar, North Kanara, Ratnagiri, Belgaum, and Satara districts. The production in 1938 was 61,598 tons, a small fraction of the total Indian production.

Building Materials. The trap rock of Bombay province furnishes an adequate supply of materials for all kinds of construction.

CLASSIFICATION Changed to UNCLASSIFIED ~~CONFIDENTIAL~~

Gravel, limestone, and murum (crumbly rock used in road-building, etc.) are found in most districts, but the best building stone comes from Kathiawar. Porbandar is known for miliolite limestone; Baroda produces marble. In number of miners employed, as listed in the census, building material ranks second to salt in importance.

Bauxite. Deposits have been found in Thana, Kaira, and Belgaum districts. Deposits near Bombay city are estimated at 750,000 tons, with an alumina content of 49 percent. At present the two aluminum plants in India use imported alumina, but it is expected that the local sources will be developed at some time.

Magnesium chloride. An excellent quality is produced from bitterns in the Rann of Cutch.

Apatite (calcium phosphate) is found in Narukot State, Gujarat.

Steatite (soapstone) is found in Idar State.

C. Forests.

The Bombay province stands first in British India in the amount of timber produced; second in forest acreage. In 1936-37, 50 million cubic feet of timber and fuel wood were produced, valued at approximately Rs. 3,900,000; if minor products are included, the value was Rs. 4,250,000. Forest covers about 8.3 million acres. The district of North Kanara accounts for one-fourth of this, and the districts of West Khandesh, Thana, and Nasik for another fourth. About 60 percent of the area is considered commercial forest land. The principal timber woods include teak, laurel, khair, blackwood, palas, babul, and ain. An important product is bamboo, valued at about Rs. 100,000 in 1937-38, and sandalwood, valued at Rs. 200,000; these grow chiefly in the south, but bamboo is found throughout the

CLASSIFICATION ~~CONFIDENTIAL~~ Changed to UNCLASSIFIED

province. A number of minor products are found, chief among which is myrobalan; over 7,000 tons of this were collected in that year (1937-38) and much of it exported. The agave and sago palm are important sources of fiber. In spite of its considerable forest area, however, Bombay has to import timber, both from Burma and from abroad.

D. Fisheries.

Since Western India has a long coastline with many excellent small harbors, it has the possibility of maintaining a large fishing industry--a possibility only meagerly realized up to the present. The methods of fishing and curing have been primitive, means of transportation inadequate, and refrigeration almost completely lacking. The 1931 Census reported about 86,000 fishermen in Western India; there was an annual catch in Bombay province of about 50,000 tons, worth approximately Rs. 7,300,000. Because of their small craft, the fishermen stay near the coast, and therefore catch the varieties of fish which frequent the shore. These small fish are bumla (Bombay Duck), catfish, wagti, mandli, and prawns; the larger mackerel and pomfret are plentiful; sole and seaperch are also caught; rays form a large share of the catch, but they bring a very low price since they are not generally used as food.

There are 32 fish curing yards in Bombay province, to which 331,673 maunds (1 maund equals approximately 82.12 lbs.) of fresh fish were brought and from which 249,825 maunds of cured fish were removed in 1939-40. Model curing sheds with cement floors have recently been built at Malwan (Ratnagiri) and Majali (Kanara). Recently some 13 launches have been built to transport fish from the Kanara coast to the Bombay market; in 1939-40 they carried $2\frac{1}{2}$ million pounds. Several ice factories and cold storage plants have recently been built at Malwan,

CLASSIFICATION ~~CONFIDENTIAL~~
Changed to
UNCLASSIFIED

Chendia (Karwar Coast), at the Kermani and Crawford Markets in Bombay, and at the Sassoon Dock where the catches are unloaded.

Stimulated by the threatened food shortage, the government of Bombay adopted (April 1942) measures to increase the industry. They propose a 10 percent increase in the fish supply at Bombay, which is usually 10,000 tons per annum. The measures adopted include an increased number of boats and the establishment of fisheries schools along the coast, especially at Ratnagiri and Karwar, to teach better methods of catching, preserving, etc. The 1939-40 report of the Bombay Department of Industries on fisheries is enthusiastic about the increase in the catch of fish but emphasizes the landing difficulties in Bombay, saying that the traffic in sand and bricks at the Sassoon Docks is so heavy that the fishing launches cannot get alongside the dock walls. The Government of India was negotiating with the Port Trust regarding the acquisition of land in the Gun Carriage Basin area for the exclusive use of the fish trade.

It has been found that shark oil can take the place of cod liver oil (whose import has been largely cut off) and methods of extraction and marketing are being studied and taught. This oil contains more vitamin A than does cod liver oil, and contains also some vitamin D. Sharks are caught chiefly at Ratnagiri.

There is no fresh water fishing industry in Western India.

 CLASSIFICATION Changed to UNCLASSIFIED ~~CONFIDENTIAL~~

32. Manufacturing.

Manufacturing in Western India is partly organized (that is, in factories) and partly carried on as a cottage industry or by individual artisans. However the textile industry is the only one which is highly organized. Most of the fairly large number of industrial workers in Bombay province are not in factories, properly speaking. The following estimates of numbers employed in Bombay province, from the 1931 census, verify this statement. The situation has probably changed but little since then; any change has perhaps been in the direction of less industrialization.

	Power Industry		Cottage	Artisans
	Large Scale	Small Scale		
Textiles	215,000	79,452	165,000	
Other	175,000	90,000	190,000	212,349
Total	390,000	165,492	355,000	212,349

From this picture it is possible to estimate some of the difficulties in the way of quick expansion of industry to large proportions.

Industrial towns are not typical. Those in this area are Bombay, Ahmadabad, Sholapur, and Baroda. Hubli might be included for its railway workshops. There are no important industrial towns in the Western India States. Towns which are centers of cottage industry are Malegaon, Bhiwandi, and Surat. Surat is said to be displacing Benares as a center of hand manufacture of silk. Bombay city and island, the second largest industrial city in India, had 476 factories employing 177,323 workers in 1936. Ahmadabad, the third largest industrial city in India, had 247 factories, employing 102,753 workers. Sholapur employed 20,000 persons in factories.

The following table, giving selected figures of factories and their employees for 1937, is constructed from the official publication

CLASSIFICATION
Changed to
UNCLASSIFIED

Large Industrial Establishments in India. For comparison, all-India figures, which include categories not represented in Western India, are presented. Totals in all columns may be larger than the sum of the itemized categories included.

(11053)

CLASSIFICATION Changed to UNCLASSIFIED CONFIDENTIAL

	Bombay		Baroda		States: Bombay and Western India		Total (India)	
	No.	Wkrs.	No.	Wkrs.	No.	Wkrs.	No.	Wkrs.
1. Textiles								
Cotton (spinning, weaving, etc.)	205	301,828	16	19,730	14	8,511	423	569,025
Hosiery	11	1,471			2	60	110	7,539
Silk Mills	27	1,125					69	6,917
Woollen Mills	4	1,641	1	140			18	8,075
Miscellaneous	28	3,782			13	581	89	11,023
	275	309,847	17	19,870	29	9,152	831	916,535
2. Engineering								
Coach bldg. & motor car repair	28	1,987			4	130	97	6,628
Dockyards	1	1,688					8	4,328
Electrical Eng.	6	416	1	158			57	8,653
Elec. Generating & Transforming Stations	16	1,046	3	77	3	111	90	9,721
General Engineering	47	4,792	2	124			326	44,407
Kerosene tinning & Packing	7	1,287					32	5,582
Metal Stamping	29	2,629			1	100	41	4,383
Railway Workshops	36	17,886	1	362			165	108,924
Ship bldg. & eng.	2	1,631					13	14,755
Steel trunk, lock & cutlery	6	1,130			3	110	13	1,899
Tramway works	1	760					6	2,194
Miscellaneous	30	1,641	2	75	1	20	79	5,931
	209	36,893	9	796	12	471	927	217,405
3. Minerals and metals								
Foundries	14	843			1	30	78	4,527
Miscellaneous (no smelting, steel, copper, lead, mica, petrol.)	3	122			2	620	53	6,442
	17	965			3	650	151	57,279

4. Foods, drinks, tobacco								
Bakeries	10	498					30	2,056
Dairy produce	3	169					9	739
Flour Mills	10	870			1	55	72	5,930
Ice and aerated water	9	349					42	1,955
Sugar factories	—	—	1	318	—	—	14	3,726
	53	3,254	4	393	1	55	1,364	88,175
5. Chemicals								
Bone and manures					1	35	25	4,494
Chemicals	2	223	1	373	1	46	28	4,687
Dyeing and bleaching	67	8,098	2	492			76	9,391
Gas works	1	458					11	1,430
Matches	6	2,693	2	392	7	1,112	117	16,263
Oil Mills	65	3,720	3	89	9	305	250	16,426
Paints	1	88					10	1,606
Soaps	5	821	1	27			22	2,057
Miscellaneous	19	1,287	—	—	—	—	43	4,357
	166	17,388	9	1,373	18	1,498	592	62,473
6. Paper and Printing								
Paper mills	4	952					12	8,095
Printing, bookbinding	107	9,681	5	315	1	70	452	40,926
Miscellaneous	7	200	—	—	—	—	24	1,434
	118	10,833	5	315	1	70	489	51,174
7. Wood, Stone & Glass								
Bricks & tiles	6	756	6	615			142	16,290
Carpentry & cabinet	6	524	1	59			58	8,381
Cement, lime, potteries	1	69	1	350	4	1,152	39	16,808
Glass	5	404			2	638	63	7,997
Sawmills	6	774	2	70			50	3,844
Stone Dressing			1	360			17	7,596
Miscellaneous	42	2,595	—	—	1	60	107	11,490
	66	5,122	11	1,454	7	1,850	476	72,406

CLASSIFICATION
Changed to
UNCLASSIFIED
COMPARTMENT

(11053)

8.	Skins & Hides						12	6,510
	Leather & Shoes	2	158				38	6,101
	Tanneries	4	295	4	200		22	1,431
	Miscellaneous	5	169					
		11	622	4	200		72	14,042
9.	Miscellaneous						2	150
	Brushes	1	50				3	903
	Gramaphone records	1	33				24	22,386
	Ordnance factories	4	3,781				6	434
	Repairs, etc.	1	67				25	7,832
	Rubber	4	881				3	475
	Stores works	1	109				2	1,305
	Telegraph works	1	194					
	Miscellaneous	16	510	—	—	3	215	79	9,187
		33	6,829			6	280	226	63,228
Grand Total		962	392,550	55	24,201	99	14,961	5,337	1,571,572

CLASSIFICATION
Changed to
UNCLASSIFIED

CLASSIFICATION Changed to UNCLASSIFIED ~~CONFIDENTIAL~~

These are perennial factories. In addition there are a number of seasonal factories: ten sugar mills and a number of others producing food and drink, four bone and manure plants, eleven oil mills, and 792 cotton ginning and baling establishments employing 54,000 people.

This table shows that the Bombay area as compared to the whole of India is outstanding in cotton textiles, relatively weak in engineering, and fairly strong in chemicals, paper, and metal works.

Imports of machinery, upon which Indian industry greatly depends, decreased during the first two years of the war. This is an expected development under war conditions unless special plans are made to counteract it.

Textiles.

Size of Industry.

The cotton textile industry is the largest industry in India. It is centered in Bombay province. According to unofficial figures, cotton spinning and weaving mills, August 1939, were as follows:

	No. Mills	No. Spindles (millions)	No. Looms	No. Workers
Bombay city and island	68	2.85	67,000	113,000
Ahmadabad	77	2.	47,000	78,000
Bombay province	178	6.	141,000	225,000
Baroda (1937)	10	(No information)		
Western India States (1937)	16	(No information)		
India	389	10.	200,000	442,000

Of India's cotton crop, half is exported. Of the half consumed at home, fifty percent is used by the Bombay mills.

Production of cotton in India:

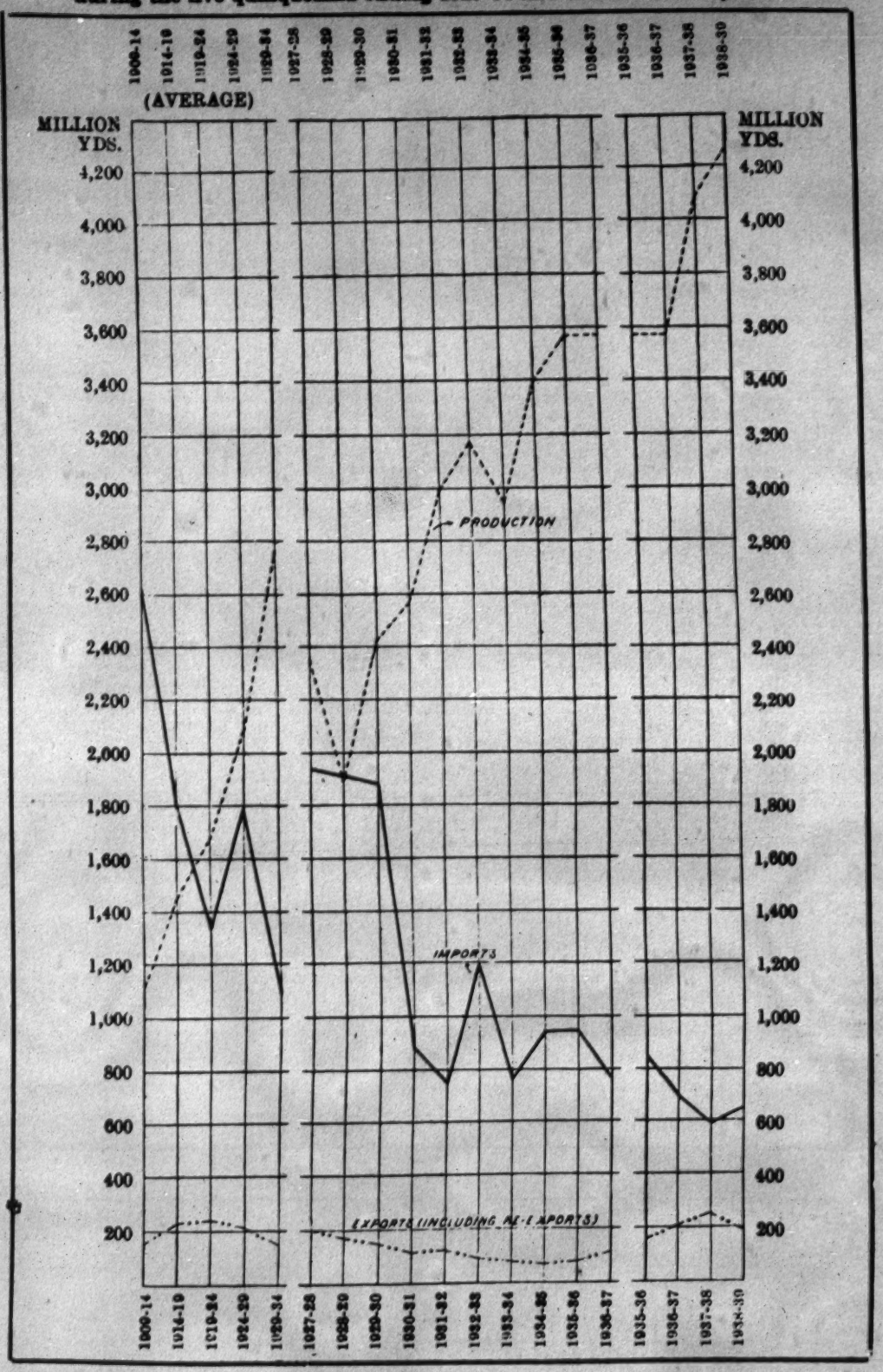
1938-39	5,120,000 bales
1940-41	5,785,000 "
1941-42 (estimated)	5,818,000 "

Consumption by Mills, 1938-39:

India	3,105,000 bales
Bombay province	1,369,000 "
Bombay city	799,000 "
Ahmadabad	349,000 "

COTTON PIECEGOODS.

Chart showing the production, imports and exports of cotton piecegoods during the five quinquennia ending 1929-34 and the last twelve years.



CLASSIFICATION
Changed to ~~CONFIDENTIAL~~
UNCLASSIFIED

Production of cotton yarns in India, by counts, 1938-39:

Counts	1000's lbs.	
1 - 20	688,030)	1,029,339
21 - 30	341,309)	
31 - 40	167,747	
Above 40	91,613	
Total	1,303,246	(includes unclassified)

About one-half of this, 647,633,000 lbs. was produced in Bombay. (However, other figures would indicate that Bombay produces about 60 percent.) It will be noted that most of the cotton yarn spun is coarse and only about 20 percent of it is suitable for better quality cloth. Indeed, half of it can be used only for quite coarse cloth. In general the Ahmadabad mills weave finer counts than those of Bombay city.

About two-thirds of the above yarn (along with imported yarn) is used by the mill industry, most of the remainder being consumed by the hand-loom industry. (Exports were only about 38,000,000 lbs.)

Production of cotton cloth in mills was:

India		
1938-39	4,269 million yds.	(920 m. lbs.)
1939-40	4,012 " "	
1940-41	4,269 " "	
Bombay		
1938-39	2,783 " "	

Bombay's share of the total production of cotton cloth has been given as about 70 percent, although the above figures show only 60 percent. Bombay has 70 percent of India's looms.

The extent of the hand-loom industry can only be estimated. There are said to be between $1\frac{1}{2}$ and 2 million handlooms, which consume about one-fourth of the yarn output of Indian spinning mills--chiefly yarn of the finer counts. They also consume the bulk of the 60 million pounds of imported yarns. R. Mukerjee estimates that in the Bombay area there are 80,000 handlooms in 1,000 weaving centers, and about 124,000 persons engaged in cottage spinning, sizing, and weaving.

~~CONFIDENTIAL~~
CLASSIFICATION
Changed to
UNCLASSIFIED

General Description.

India, having been a grower of cotton and a producer of hand-made cloth for centuries, became an exporter of both to Britain in the early days of their trade; and Bombay, being the chief western port through which much of this trade passed, developed a business community of traders in cotton and cotton cloth. When these men, chiefly Parsis and Bhatias, grew rich through such profitable trade, they began to turn their attention to investment in a cotton textile factory industry, especially in the latter part of the nineteenth century. Lokanathan says, "Modern industry in India owed its development primarily to two classes of people: British merchants who had come out to represent British trading firms, and the cotton merchants of Bombay . . .and later Ahmedabad." The companies were formally joint stock, but really proprietary in character. Thus this premier industry of India was the result of Indian initiative and money, although technical service, both in financing and in producing, was rendered by Englishmen, and still is to a declining extent.

The industry became centered in Bombay city, Ahmadabad, Sholapur, Surat, and Broach. Although the raw material cost forms four-fifths of the cost of the yarn and the production of cotton is widely scattered over India, still there were advantages in centralizing production in Bombay province, since much of the yarn was exported and transport by water (from Bombay) was very cheap. Transport costs to Bombay from inland points were only a little less than transport costs from Bombay to Japan, even though cheap freight rates were given by the railways on merchandise to and from port cities. Also the productive factors--workers as well as enterprise and capital--were available in Bombay. And the importance of having a stable supply of all varieties of cotton available in addition to a grading center was increasingly apparent.

CLASSIFICATION Changed to UNCLASSIFIED ~~CONFIDENTIAL~~

The mills in Bombay are larger than those in Ahmadabad. In 1939 the average number of employees per mill was (estimated) 1,662 in Bombay and 1,013 in Ahmadabad. The Bombay mills were organized largely for the export trade while those in Ahmadabad were more local in character, producing for the domestic market. Besides, public financing was more successful in Bombay. The Ahmadabad companies were essentially partnerships and "undercapitalization was invariably the rule." Nevertheless, the Ahmadabad mills have been more prosperous than those in Bombay, a fact which Lokanathan ascribes to the inefficient management furnished by the management agencies in Bombay, which are not sufficiently specialized. Mr. Fred Stones of E.D. Sassoon and Co., Ltd., one of the largest managing agencies in Bombay, stated, ". . .although I am in one way or another associated with most of the industries of the city of Bombay, it is primarily with the vast textile industry that I am connected." In Ahmadabad there is usually one agency for one mill. The scheme for the rationalization of the cotton industry of Bombay in the past decade has, Lokanathan says, fizzled out. The Indian Finance Yearbook (1934) calls the Bombay mills the least efficient in India.

Recently a tendency toward decentralization has been observable. Rising rents and taxes have increased costs in Bombay. The transport advantages of a port become less important as the domestic share of the market increases. (The advantage in cost of imported yarns still persists). Wage rates are usually lower in other parts of the country, but whether this advantage would be cancelled by a lower degree of efficiency is open to question. Capital, too, is increasingly available in inland cities, and railway rates have been revised so as not to favor port cities so much. The result is pressure upon Bombay both to rationalize her industry and to develop specialization in superior goods which would be largely non-competitive.

CLASSIFICATION ~~CONFIDENTIAL~~ Changed to UNCLASSIFIED

The Bombay mill industry has copied Lancashire. The machinery, which is fairly good, is British. The only American machine used to any extent is the Universal winding machine. India uses plain looms, one or two to a worker, in contrast to the automatic looms of the United States and Japan.

In Bombay city the mills are concentrated in Parel, in F ward, in the northern part of the city. A cotton exchange and depot has been opened in Sewri, the adjacent section, also in F ward. The Indian Central Cotton Committee maintains a research laboratory in Bombay which studies the measurable characters of cotton fibre and its spinning value and makes exhaustive spinning tests of all new cottons. Considerable progress has been made in grading and classifying.

Tariff Policy.

The Indians have claimed for decades that it has been a matter of British policy to prevent the industrialization of India. This struggle finds expression in the tariff history, in which the cotton textile industry more than any other has been the battleground. A brief account of some of its aspects will help to explain certain current frictions and differences.

The following table presents a simplified statement of the history of changes in tariff rates on imports of cotton yarn and cloth, and of excise taxes on yarn and cloth manufactured in India. It will be observed (1) that the Indian tariff on imports was basically a general low rate for purposes of revenue, and that at first a countervailing excise tax was imposed on the same commodities produced in India; (2) that very early (1896) cotton imports received a favored position--due to agitation by the Lancashire industry which depended upon the Indian market; (3) that in 1917 (during the World War, when "fiscal autonomy" for India was suggested) the first break in this policy was

CLASSIFICATION
Changed to
UNCLASSIFIED

made, when the general tariff rate of 7½ percent was made to apply to imported cloth while the excise on Indian cloth continued at 3½ percent; (4) that this differentiation continued as the general rate rose to 11 percent, and was climaxed in 1925 with the removal of the excise (following depression and strikes in the Indian industry); (5) that in 1930 the policy of Imperial Preference was finally introduced and was developed in the years to follow, as Japanese competition became more intense.

	Import Duties			Excise Tax	
Date	General	On Yarn	On Cloth	Yarn	Millmade Cloth
1894	5%	5%	5%	5% (on yarns above 20)	5%
1896	5%	nil	3½%	nil	3½%
1916	7½%	"	3½%	"	3½%
1917	7½%	"	7½%	"	3½%
1921	11%	"	11%	"	3½%
1922	15%	5%	11%	"	3½%
1925-26	15%	5%	(15% British (20% on most non-British	" "	nil
1931, supplementary budget, 25% of rate surcharge on all imports					
1932			50% on non-British		
1933			75% on non-British		
1934	Indo-Japanese Agreement: (a) duties on Japanese cloth not to exceed 50% except that extra duties might be imposed if the yen depreciated; (b) Japanese quota of Indian imports of cotton cloth tied to Japanese imports of Indian raw cotton; thus Japan must buy more Indian cotton if she wished to sell more cotton cloth to India. (Basis: 125 m. yards, plus 325 m. yards against 1 million bales, or 400 m. yards against 1½ million bales.)				
1934			(25% British (50% non-British		
1935	Indo-British agreement (Mody-Lees Pact); (a) British cotton goods to continue to have preference in Indian customs. In case a radical change in tariff is contemplated by Indian Tariff Board, British government to have the right to request an inquiry. (b) Britain to encourage use of Indian cotton. India to share any advantages given the United Kingdom in Empire markets.				

CLASSIFICATION
Changed to
UNCLASSIFIED ~~CONFIDENTIAL~~

This last agreement was rejected by the Indian Legislature, by a vote of 66 to 58, but "this in no way affects the validity of the agreement."

Some decades ago India had a large export market for her yarn principally in Japan and China, whose mills produced chiefly coarser cloths. Then her yarn exports declined from a pre-1914 average of 199 million pounds to a post-war average of 82 millions, and finally in 1938-39 to 38 millions. At the same time, the exports of cloth from India to China were declining from a pre-war average of 170 million yards to a post-war average of 63 million yards and finally in 1938-39, to less than one-tenth of one million yards. Japan had completely replaced India in the Chinese market for both yarn and cloth. (Exports of raw cotton to Japan grew during this period).

On the other hand, India has always imported a great deal of yarn, principally of the higher counts. The figures are: pre-1914 average, 42 million lbs.; post-war average, 45 million lbs.; 1938-39, 36 million lbs. Before the war, the United Kingdom was the chief source of supply, furnishing 37 million lbs. In 1938-39, this figure had fallen to 5 million, whereas Japan, which had become the chief source of supply, accounted for 21 million lbs., and indirectly for an additional 10 million lbs. which came from China. (China's mills were mostly Japanese). The percentages from each of these sources were, United Kingdom 13 percent, Japan 58 percent, China 29 percent. Thus as far as yarn is concerned, not only India but also the United Kingdom had lost their foreign market to Japan. This--the recognition by British mill owners that Japanese competition was the real enemy--accounts for some recent changes in policy.

Since the Bombay mills catered to the export trade, while the Ahmadabad mills catered to the domestic market, this development affected

CLASSIFICATION
Changed to
UNCLASSIFIED

the Bombay mills very seriously, and the increase in exports of cloth was not sufficient to equalize this effect.

The increase in home manufactures of cotton cloth, at the expense of imports, has recently expanded the domestic market for Indian yarns.

Imports of cotton piece goods, in millions of yards:

	Pre-War Average	Post-war Average	1938-39
From United Kingdom	2549.3	1186.8	205.5
From Japan and China	4.0	115.7	424.8
From United States	10.5	8.4	0.2
Total	2616.8	1335.8	647.2

Japan had very largely replaced the United Kingdom as a source of greys. About two-thirds of the coloureds came from Japan and about two-thirds of the bleached came from the United Kingdom. But of more significance was the actual decline of imports of piece goods, showing to what extent the domestic market had been captured by Indian mills. India's exports, too, had increased from about 90 million yards, pre-1914, to about 167 million yards in 1938-39. These exports were chiefly of coarser cloths, to Burma, Malaya, Ceylon, and Africa.

The accompanying chart shows graphically the tremendous change which has taken place in recent years, by which India has become a producer of cloth. If these curves are studied in relation to the tariff acts mentioned above there seems to be a definite interaction.

Recent Situation.

The long depression which characterized the Indian industry from 1923 to 1939, illustrated by the fall in India's share of Egypt's imports of cotton cloth, caused India to give Britain notice in 1936 that she would end the Ottawa Agreement. New negotiations led to the Indo-British trade treaty of 1938 which provided among other things:

(a) that the import duty on raw cotton be doubled;

(b) that the import duty on three main classes of British textiles be reduced;

CLASSIFICATION
Changed to
UNCLASSIFIED
~~CONFIDENTIAL~~

(c) that a quota arrangement be made, linking Indian imports of British-made cloth with exports of Indian cotton to Lancashire.

The control that England still exerted over Indian fiscal policy--for all India's "autonomy"--was demonstrated when this treaty was accepted by the Viceroy and Council of State after the Legislative Assembly refused to pass it. Even the advantage to India in securing the abolition of the excise on cotton cloth in 1925 and the increasing discrimination against imports were nullified, the Indians claimed, by the stabilization of the rupee at the artificially high rate of one shilling sixpence (1925-1927), a rate opposed by many Indian public men.

The Bombay Presidency budget for 1938-1939 provided for a sales tax of $6\frac{1}{4}$ percent on cotton manufactures, and for a property tax of 10 percent in Bombay city and Allahabad. These both fell heavily on the cotton textile industry.

With the recent expansion of the textile industry, Indian spinning mills became a major market for India's cotton crop, and Indian weaving mills became a major market for India's mill-made yarn. Along with this, the necessity of improving the staple of the cotton and the manufacture of the yarn in order to compete with finer imported cloth was recognized. Indeed, there has been a steady increase in the production of colored and bleached piece-goods. In spite of this development, the general depression was continuing when the war broke out in 1939. There had been a number of large and serious strikes in preceding years, and in March 1940 a general textile strike began in Bombay, protesting a reduction in dearness allowances, which lasted for six weeks. Thus the industry has become accustomed to unrest and stoppages--a fact which must be recognized in any present plans. However, profits for some concerns began to improve in 1938.

The following tables, taken from Indian Information, September 15, 1941, show the recent situation:

CLASSIFICATION ~~CONFIDENTIAL~~
Changed to
UNCLASSIFIED

Approximate poundage of yarn available for consumption in India (millions pounds)

	1936-37	1937-38	1938-39
Total Indian mill production	1,054	1,159	1,303
Less Exports plus re-exports	19	46	45
Plus imports	29	22	36
Available for consumption in India	1,064	1,136	1,293
Cloth produced in India (approximate equivalent in yarn @ 100 yarn = 112 cloth)	782 / 698	864 / 771	920 / 821
Balance of yarn available for sale in India	366	365	472

Approximate yardage of piece-goods available for consumption in India (million yards)

	1936-37	1937-38	1938-39
Total Indian mill production	3,572	4,084	4,269
Less exports plus re-exports	343	466	408
Plus imports	832	622	672
Total quantity mill-made cloth available for consumption in India	4,061	4,239	4,533
Estimated production by hand-loom industry	1,751	1,746	2,259
Grand Total	5,812	5,985	6,792

CLASSIFICATION
Changed to
UNCLASSIFIED

It will be seen from these figures that the dependence of Indian mills upon foreign (fine) yarn is not great. India also has a large amount of yarn (coarse) available for export or for increased domestic use. As for cloth, it is seen that India imports about 700 million yards. The question is, can Indian mills supply India's needs and, in addition, the needs of the British and American troops stationed there and elsewhere in the East.

In November 1941 the Central Board of Revenue ruled that textile mills may deduct--in the calculation of income and excess profits taxes--costs of alterations made necessary by war production. Also, the hour-restrictions of the Factory Act were relaxed by the government to allow mill operatives to work 60 hours per week, and in some cases overtime payments were made. However, in many mills the longer hours were not found necessary in order to fill orders, and in many mills only one shift is worked, although the Bombay Millowners' Association stated that from December 1940 to November 1941 the number of spindles working a double shift increased from 58 percent to 80 percent, and of looms, from 58 percent to 76 percent. In any case, with a more intensive use of men and machines, production could be stepped up considerably, probably by 50 percent. Yarn would be available for this output only if the coarser cloths were acceptable.

There have been recent difficulties, such as lack of coal (due to inadequacy of transportation), which have hampered the Ahmadabad mills, an exodus of workers from Bombay due to war panic, and later, stoppages due to political disturbances among the workers. In general the condition of the industry has been uncertain, greatly affected by war shocks and rumors. The efforts of the government to curtail short-staple cotton acreage in favor of food crops (discussed above), an additional duty of one anna per pound on raw cotton imports, an

CLASSIFICATION
Changed to
UNCLASSIFIED CONFIDENTIAL

increase in government orders from 185 million yards in 1940-41 to 1,000 million yards in the calendar year 1942, with a payment of one anna a yard above the current price for that now being sold have all encouraged optimism. The Cotton Textiles Advisory Panel in Bombay agreed to place 35 percent of its capacity (instead of 20 percent) at the disposal of the government. Nevertheless in April the lowest cotton price for a decade was reached--Rs.141 per candy, for Broach April-May contracts.

It has been suggested that short staple cotton might be substituted for linters in the production of explosives. This cotton is also being used more extensively in the production of blankets. As noted above, the government has relaxed its specifications on certain Army textiles to permit the use of the lower count yarns. However, the weak and uncertain cotton market with its depressed prices was reflected in the yarn and cloth markets.

A few figures indicate the situation:

Cotton:

1. Production forecast, India, 1941-42, 5,818,000 bales.

   (Official. A private forecast is 6,150,000 bales).

   Actual production, 1940-41, 6,500,000 bales.

   Bombay Province & States & Baroda, forecast, 1941-42, 1,310,000 bales.

   Actual production, 1940-41, 1,262,000 bales.

2. Estimated carry-over (unofficial) for August 31, 1942, 4,311,163 bales.

   Actual carry-over on August 31, 1941, 2,694,000 bales.

3. Stocks held, July 1942, in Bombay, 1,127,792 bales (plus smaller amounts at Calcutta, Karachi, etc.)

   Stocks held, December 1940, 456,597 bales.

   Stocks held, December 1941, 1,113,596 bales.

4. Exports, September 1, 1941 to April 11, 1942, 1,576,631 bales.

   Exports, September 1, 1940 to April 11, 1941, 842,084 bales.

   These exports are now almost entirely to the United Kingdom and Australia.

~~CONFIDENTIAL~~ CLASSIFICATION Changed to UNCLASSIFIED

Yarn:

1. Production of Indian mills 1941 (from Capital, April 2, 1942) was 454 million lbs.; 1940 311 million lbs.

2. Consumption of raw cotton by Indian spinning mills, March to June, 1941, averaged 292,000 bales per month; July and following months, averaged 325,000 bales.

Cloth:

1. Production, Indian mills 1940-41, 4,269 million yards.

   1939-40, 4,012 million yards.

   Production, Bombay, 1940, 1200 m. yds.; 1941, 1500 m. yds.

2. Government orders, 1942, recently estimated at 400 million yards, are now estimated at 1,000 million yards.

Engineering and Metal Works.

According to Large Industrial Establishments, there were in 1937 in Western India 38,160 workers employed in all kinds of engineering works. Of these, 18,248 were employed in railway workshops. The second largest single number was 4,916, engaged in general engineering. The engineering shops, however, were for the most part only jobbing shops making a variety of products to order for the maintenance of other industries. Reference to the table (above in this paragraph) will show the numbers of the various kinds of works.

These figures, of course, do not include independent artisans or workers in cottage industries. East Khandesh, Nasik, and Dharwar each had more than 2,000 workers in metals. There were more than 20,000 blacksmiths scattered over Bombay province. Their chief function is to repair implements, but they also make knives, locks, etc. There is a movement of these workers towards the engineering shops.

It is impossible to secure any detailed information concerning most of these shops, but judging by the number of employees or other partial information the following seem to have some importance. (Railway workshops are not included here.)

~~CONFIDENTIAL~~

CLASSIFICATION
Changed to
UNCLASSIFIED

In Bombay City

Jost's Engineering Co., Ltd.

Cooper, Comell & Clifford, engineering works.

Acme Manufacturing Co. Ltd., iron and brass founders.

Alcock, Ashdown & Co., Ltd., structural and mechanical engineers and shipwrights.

Bhagat & Sons, structural and welding engineers.

Coronation Iron Works, foundry.

Empress Iron and Brass Works, foundry.

Garlick and Co., structural and mechanical engineers.

Indian Hume Pipe Co.--reinforced concrete pipes, septic tanks, etc.; factories also in Ahmadabad and Poona.

Omiar Foundry & Engineering Works, general engineers, shipbuilding, foundry.

Premier Construction Co., Ltd., structural engineers.

Byculla Iron Works, foundry and mart.

Shahparia Iron & Steel Works, electrically welded tanks (next to Byculla Goods Depot).

Godrej & Boyce Mfrg. Co., makers of safes and steel furniture.

Consolidated Pneumatic Tool Co., Ltd. manufacturers of air compressors, vacuum pumps, drilling machines, etc.

Indian Tool Manufacturers, Ltd., makers of small tools, twist drills, etc.

Electric Fan & Motor Works, makers of dynamos, fans, etc.

Indian Smelting & Refining Co. Ltd., smelters and refiners of non-ferrous metals.

Bukhandas Damodardas Bros.' Brass Factory.

Practical Engineering Company.

Mahendra Manufactory, engineering.

M. K. Chibber & Sons, Ltd.

A. S. Desai's Metal Stamping Works.

Govardhandas Karamchand Mechanical Workshop.

Wolverhampton Works (at Worli).

~~CONFIDENTIAL~~

CLASSIFICATION
Changed to
UNCLASSIFIED

Dun Aluminum Factory, metal stamping.

Oriental Metal Pressing Works.

Bombay Brass & Metal Works.

A. B. Tarkar Metal Factory.

Crown Aluminum Works, metal stamping.

Punjab Metal Works.

Metal Box Co.

Harishankar Vrajlal Metal Works.

Allwyn Steel Equipment Co. Ltd., steel trunks and locks, etc.

Bombay Telephone Company's Workshop.

Railway Wagon Erection.

Hindustan Iron & Steel Products.

Crown Iron & Stee Co.

Eastern Iron Works.

Duke Iron & Brass Works, foundry.

Jayant Metal Mfrg. Co., foundry.

Art Metal Works, foundry.

Connought Iron Works, foundry.

Anoconda Copper Corporation.

Bombay Cycle & Motor Agency, assembly plant.

Of these, Jost's, Premier, and Alcock, Ashdown are the most important.

In Ahmadabad

Mistri Mangaldas Jethabai Iron & Brass Factory.

Ahmadabad Victoria Iron Works.

Imperial Iron Works.

In Poona

Government Central Stores & Workshop (Kirkee).

V. J. Municipal Technical & Municipal Workshop.

Gujarath Metal Factory, metal stamping.

~~CONFIDENTIAL~~

CLASSIFICATION
Changed to
UNCLASSIFIED

In Other Towns

Ganesh Iron Works, Thana.

Hindustan Engineering & Implement Co., Satara.

Laxmi Narayan Iron Works, Chalisgaon, East Khandesh.

Basappa Devendrappa Godke Bros.' Workshop, Hubli.

Sidheshwar & Co., Safe manufacturers, Hubli.

Dhiraj Metal Works, Rajkot.

Samsuddin Tajbhoi, steel trunks & locks, Rajkot.

Naran Lala Metal Works Factory, Navsari.

Kirloshkar Bros., agricultural implements, Kirloshkarwadi, Kolhapur.

Shivaji Works Ltd., sheetmetal & cast iron, Tikekarwadi, 5 miles from Sholapur.

Baroda Electric Works, Baroda.

Sayaji Iron Works, Baroda.

By the middle of 1942, thirty non-government shops in Bombay province and two in Baroda State were engaged in war production for the government.

Bombay has four firms which produce roadbuilding machinery; two of these make bitumen boilers and two make concrete mixers. The combined output is 41 to 43 units per month. Baroda has one firm which produces about four asphalt mixers and ten concrete mixers per month.

The Indian Tool Manufacturers, Ltd., established in 1939, the only toolmaking plant in Bombay, has a capacity of 400,000 drills a year and can be greatly expanded. It imports its tool steel. (It has been reported that the number of firms in India manufacturing some kind of machine tools has now increased to well over 100. One would expect some of these to be in Western India.)

CLASSIFICATION
Changed to
UNCLASSIFIED ~~CONFIDENTIAL~~

The Hinds Cycles, Ltd., established in 1940, is the first bicycle factory in India; its designed capacity is 120,000 per annum. Free wheels, chains, and hubs must be imported.

The principal machine shops are those connected with the railways. The B.B. & C.I. employed (1937) more than 2,000 men in its main Bombay (city) workshop and nearly a thousand more in its carriage and wagon shop. In other Bombay city and suburban workshops it employed over 600 more. The G.I.P. employed, in Bombay city, in two Railway Mechanical Workshops in Matunga & Parel, about 6,500 men, and an additional 300 in smaller shops. This makes a total of more than 10,000 employees in railway workshops in Bombay city. The number has been greatly expanded since the outbreak of the war, as the railway workshops constituted the main source of supply and the training ground for this work. The B.B. & C.I. also has workshops at Surat, Ahmadabad, Dohad, and Freelandganj, the last employing about 2,000 men (1937). The G.I.P. has workshops at Manmad, Igatpuri, Nandgaon, Bhusawal, Dhond, Sholapur, and Kalyan. The Madras and Southern Mahratta Railway has its chief metre gauge workshop at Hubli where it employed about 2,500 men (1937). Other workshops and sheds in Hubli, Gadag, Castle Rock, Ghorpuri employed about 625 more.

The Barsi Light Railway Co. has a carriage and wagon workshop at Kurduwadi, Sholapur, which employed 238 men; and the Gaekwar's Baroda State Railway has workshops in Baroda employing 362 men.

In addition to these there are several important municipal and street-railway workshops in Bombay and vicinity as follows: Bombay Municipal Workshops (employing 219), Bombay Port Trust Workshops (employing 700), Bombay Electric Supply & Tramways Co's. Workshop at Dadar (employing 760).

The only Western India shipbuilding and dock works companies

CLASSIFICATION
Changed to
UNCLASSIFIED

listed in Large Industrial Establishments, 1937 were the Mazagaon Dock, Ltd. (employing 1,256 men), Alcock, Ashdown & Co., the Bombay Steam Navigation Co.'s Workshop (employing 375), and His Majesty's Indian Naval Dockyard (employing 1,688). The Port Trust has its own workshops.

The first two named above are commercial companies which can handle drydocking work and repairs. It is reported that a new company, H. I. Dixon, has now entered the field of ship repairing in Bombay. It has also been reported that shipyards have not been concentrating on shipbuilding and repairs, but have been dissipating their time and materials on less essential goods. In the past, the Bombay companies confined themselves largely to repairs; but in March 1942 it was reported that as many as nine vessels were then under construction in Bombay. Some small ports in Kathiawar have long carried on the building of small river and fishing craft. These facilities are being examined, e.g. at Bhavnagar, for war use. Their capacity could probably be increased to a figure equalling about one-fourth of that of Bombay.

In the meantime, the government of India has requisitioned some coastal steamers. Fishing craft, of which there is a large number, could be used for coastal service.

Motor Vehicles.

Bombay is an important center of the motor vehicle industry, both for assembly and tire manufacturing. Chassis are imported from the United States or Canada. The number of chassis for military purposes ordered from September 1939 through June 1941 was 41,575. By the later date, the number of vehicles completed was 17,400. The program for 1942 is 60,000, according to the government of India statement on India's war effort. According to Indian Information, February 1, 1942, the Army in India had 60,000 motor vehicles compared with 5,000 before the war.

CLASSIFICATION
Changed to ~~CONFIDENTIAL~~
UNCLASSIFIED

The General Motors Assembly plant has a capacity of 48,000 trucks on a two-shift basis, which might become 60,000 on a three-shift basis (or, as estimated elsewhere, an additional emergency capacity of 24,000 per annum). The bodies are manufactured by General Motors in Bombay (24,000) and when necessary by local body shops (24,000). General Motors can expand its body-building capacity to 48,000 by adding buildings and equipment. These figures are based on working two shifts, 25 days per month. The number of employees is 4,700, including both assembly and body-building (reported as 546 in 1937). The lumber, steel for bodies, and hardware are all procured in India. This company has been making 50 percent of the vehicles for the Indian Army. (But in June 1942 the government of India was reported to have decided not to increase the body-building capacity from 2,000 to 3,000 per month.

Ford's assembly plant in Bombay has a capacity of 1,750 chassis per month. The number of employees in 1941 was 336.

Dodge (Chrysler) has no assembly plant in Bombay but reports assembly capacity at dealers as seven a day, perhaps 150 or so a month.

A small assembly plant for Studebakers was built at Port Okha, a Kathiawar port, in 1940. All Studebaker cars for India, the parts for which are brought from the United States are assembled in this plant. There are 50 workers and a capacity of eight cars and 15 trucks per week.

Firestone Tire and Rubber Co. has a plant in Bombay with a capacity of 1,000 tires a day. This company and Dunlop's in Calcutta have been supplying three-fourths of India's ordinary tire demands (the actual figures are a commercial secret). It is now supplying tires to the Indian Army and has agreed with the Indian government to make special size truck tires and to expand its output by

CLASSIFICATION Changed to UNCLASSIFIED

November 1942 from 18,000 to 65,000 units per annum, the government to furnish the major part of the capital.

Motor repair shops are treated in paragraph 35.

Oil Tinning, Packing, and Storing.

The present manufacture of oil drums is inadequate, thus creating a transportation problem. Standard Vacuum Oil Co. has a can factory which employed 161 men in 1937, and it expects to have a plant in Bombay producing 45,000 drums per month by October 1943. A plant which is producing 250 drums per day, using metals supplied in India has recently been built in Bombay by the "Caltex" Oil Company. It is planning to operate two shifts a day and increase production to 600 drums per day, with eventual expansion to 40,000 per month. The following packing and distributing plants in Bombay were listed in 1937: Burmah-Shell (three), Standard Vacuum, Western India Oil Distributing Co., and Indo-Burma Petroleum Co. Ltd. (one each).

In the spring of 1942 it was reported that one-gallon and four-gallon tins were being produced monthly in a quantity to provide the following capacity:

	One-gallon		Four-gallon	
	Average	Maximum	Average	Maximum
Bombay	46,909	180,000	788,723	1,542,000
Marmugao	4,900	104,000	110,349	380,000
Okha		78,000	26,600	156,000

Chemical and Related Industries.

The production of heavy chemicals in India was almost completely lacking before the war. Only four plants are listed (Large Industrial Establishments, 1937) for Western India, two in Bombay province employing 223, one in Baroda employing 373, and one in Bombay States employing 46. Those in Bombay province were the small Ramco

CLASSIFICATION ~~CONFIDENTIAL~~ Changed to UNCLASSIFIED

Chemical Works in Borejadi, near Ahmadabad, and the important Eastern Chemical Co. in Bombay. At present the latter and the Dharamsi Morarji Company produce 15 tons of 95 percent sulphuric acid per day. That in Baroda was the Alembic Chemical Works, Ltd., one of the largest in India; in 1937 its sales were Rs.15 lakhs. Finally, in the Bombay States, there was the Shri Sakti Alkali Works in Dhrangadhra.

Ahmadabad is producing acetic acid from acetate of lime brought from Mysore. An increasing production of alkalies in Western India is reported, but no figures are given.

The Pioneer Magnesia Works Ltd.--recently taken over by Tata Chemicals--has plants at Kharaghoda (near Ahmadabad) and Mithapur (near Dwarka) making magnesium chloride and other chemicals. There is considerable industrial development in Baroda, encouraged by the government. Also at Mithapur, a heavy chemicals plant is being started by Tata's, Baroda State subscribing 20 percent of the capital. This concern is to produce heavy industrial chemicals, alkalies, fertilizers, etc. A sulphuric acid factory, consuming one ton of sulphur a day, was built in 1940 at Petlad; the Baroda Chemical Works have a plant consuming one-half ton a day. In 1940 a smelter for the production of antimony was built in Bombay. India now produces enough for domestic needs.

Salt is a very important product in India, much of the output of which comes from Western India, chiefly Dharsana and Charwada on the Southern Gujarat Coast, near Bombay city, and the Rann of Cutch. (India, however, is not self-sufficient in salt). In general the product is inadequately purified, and it has been recommended that a salt-purifying plant be built either in Bombay or Cochin. The Tata interests own a salt works at Okha and the vessels by which the product is carried to Bombay, Calcutta, and other ports. There are extensive salt-pans at Kharaghoda on the Little Rann of Cutch; railway sidings into the Rann

CLASSIFICATION Changed to UNCLASSIFIED

facilitate collection. The Rann of Cutch is smooth, hard mud in the dry season but becomes water in the monsoon.

Glue, which was formerly imported from Europe, is now produced in a modern plant in Bombay. Its capacity is one-half ton daily.

Soap is produced in five factories in Bombay city and suburbs. Lever Bros., Ltd. employs 489 persons, and the others combined employ 332. Indian Finance (December 7, 1940) states that there are 26 small plants producing laundry soap in Bombay province. Soapmaking is also extensively carried on as a cottage industry. For example, at Prantij, five karkhandars (cottage industries grouped under one head) manufacture soaps valued at Rs.200,000 per year. Glycerine also is produced in one of the Bombay plants. The glycerine output in India has been small, and it is uneconomic to recover it in small factories. Experiments are being carried on for its production from groundnuts. If this becomes practicable, the large tonnage of groundnuts grown in Khandesh should be an important source of supply.

Drugs and medicines are not produced in sufficient quantities to meet military needs, although 65 percent of the medical supplies and stores for the armed forces are now made in India, as against 25 percent before the war. It has been recommended that a plant be located in the Bombay area, with biological farms nearby. Firms producing drugs and supplies are the Chemical, Industrial and Pharmaceutical Laboratories, Ltd; Zandu Pharmaceutical Works; Sirdar Carbonic Gas Co.; Standard Chemical and Pharmaceutical Co., and other small firms in Bombay; also, the Bole Bros. Surgical and Dressing Factory, Powel's Surgical Instruments Factory and Pharmaceutical Laboratory, Diamond Surgical Dressing Works, Pioneer Fibre Co. (medicated cotton), and Government Medical Stores, Bombay.

Within the past two or three years a beginning has been made in the production of rubber gloves and gas masks. Latex from Travancore

CLASSIFICATION
Changed to
~~CONFIDENTIAL~~
UNCLASSIFIED

is used. Several fairly large firms in Bombay city and suburbs produce rubber goods: the Standard Rubber Works, Universal Rubber Works, Swaraj Industrials, Ltd., and Bharat Rubber Works. Together these employed 881 men in 1937.

Some dyestuffs are produced, and there are many dyeing and bleaching establishments in Bombay city and Ahmadabad. The Imperial Chemical Industries, Ltd. in Bombay and the Dharamsi Morarji Chemical Co., Ltd., Ambernath, are large dye plants.

Research has been undertaken in cellulose at the Cotton Technological Institute, Bombay; since India has no cellulose manufacture, the loss of rayon yarn imports from Japan has checked artificial silk production. Baroda has three power-loom factories for weaving artificial silk, two at Billimora and one at Patan.

Western India is not an important producer of glass; seven factories are enumerated in government reports. The largest of these are the Paisa Fund Glass Works in Talegaon (near Poona), the Ogala Glass Works, Ogalwadi (Kolhapur), Mahendra Glass Works, Morvi, and Surendra Glass Works Ltd. in Jorawarnagar, Kathiawar. There is said to be good sand for glass at Sankhada, and at the river at Pedhamli, in Baroda.

The Goodlass Paint Works, Parel (Bombay), seems to be the only paint plant in Western India.

In recent years under a policy of protection, India has become almost self-sufficient in matches. The Bombay Match Works employs more than a thousand workers. Other plants employing 100 to 900 workers each are: New Era Match Works (Bombay), Thana Match Works; Western India Match Co., Ltd. (Ambernath) which claims 78 percent of the provincial output; Datar Match Factory, (Petlad, Baroda); Veraval Match Works; Cambay Match Works, Hasain Yaver Match Factory, and Harihar Match Works (Cambay).

CLASSIFICATION
Changed to
UNCLASSIFIED

At present there is extensive manufacture of wood products for war purposes in Bombay. These include ammunition boxes, bodies for lorries, beds, building materials for barracks and warehouses, etc. A Timber Directorate controls the Port Timber Depot, Bombay, and others, whose total capacity is 60,000 tons. Orders for ammunition boxes to the value of Rs. 850,000 have been placed in the Bombay area.

The paper shortage in India has led to the proposal of such conservation schemes as reduced size of newspapers. Some paper prices have risen as much as 300 to 400 percent. The government is encouraging the cottage industry. Ordinarily India produces about one-third of the paper she uses. (The Statesman, May 7, 1942, says that India manufactures 90,000 tons of paper and imports 175,000 tons of paper and pulp.) The industry has grown considerably during the past decade, encouraged by a protective tariff. The principal producers in Western India are D. Pudumji Paper Mills (Bombay), Reay Paper Mill (Poona), and Gujarat Paper Mills, Ltd. (Barejadi, near Ahmadabad). A new paper mill was built in Baroda in 1941; it has been reported that bamboo is available locally for a 10-ton per day capacity.

There are a very large number of printing establishments, those in Bombay province alone employing about 10,000 men, and the rest of Western India 400 more.

The Ransipur china clay works was built in Mehsana in 1934. Its output in 1938-39 was 880 tons. (There is an identical report of a factory at Patan; whether there are two or whether the reports are confused is a question.)

In 1940, Vijapur (Baroda) built a plant for crushing and refining colored earths and chalk; the raw materials are brought from Idar and Kathiawar.

There is not much quarrying or production of bricks and tiles

CLASSIFICATION
Changed to
UNCLASSIFIED
~~CONFIDENTIAL~~

in Western India, although potentially there is an abundance of building materials. The important tile factories and potteries are Raval Tiles Factory (Bombay city), Bharat Flooring Tiles Factory (Mora, Kolaba), Kalyana Bricks and Tile Factory, and Brick and Tiles Works (Baroda), New Phoenix Pottery Works (Gandevi), Tiles and Pottery Works (Billimora) and Banabhai Doolabhabhai Pottery Works (Desara), all in Baroda State; the Parshuram Pottery Works, Ltd. with a plant in Morvi and one in Than, in Eastern Kathiawar.

There are numerous stone crushing factories, mostly in and around Bombay city, employing in all nearly 2,000 men. Only two employ more than 100 men: the Municipal Love Grove Crusher, and the Muland Works of Asbestos Cement, Ltd. The Shree Sayaji Iron Works Quarry in Udalpur (Baroda) employing 360 men, and Stone Quarries (Gondal) employing 400 men are stone dressing works.

The present supply of cement is adequate; in recent years domestic production has increased greatly and imports have fallen to some 5,000 tons in 1940-41. In the same year the associated cement companies exported 100,000 tons to Iraq, Ceylon, etc. The output of Portland Cement in India was 1,170,000 tons in 1937-38. The capacity in 1940-41 was 2,800,000 tons. In 1936 the companies producing cement centralized their administration and sales in the Associated Cement Companies, Ltd. capitalized at Rs. 8 crores. With the expansion of the industry this merger soon lost its monopolistic position, but in 1940 a marketing agreement was made between Associated Cement and the Dalmia group. Prior to the war the supply tended to outrun the demand. There are two large concerns in Western India, the Indian Cement Co. Ltd., in Porbander, producing 40,000 tons, and the Okha Cement Co. in Dwarka, producing at present 200,000 tons (in 1937-38, 82,000 tons, increased by 50 percent in 1940 through plant expansion). Assuming transportation

CLASSIFICATION ~~CONFIDENTIAL~~ Changed to UNCLASSIFIED

facilities, the Bombay area can procure cement also from Lakheri in Rajputana and Shahabad in Mysore, both rather large producers and on a direct railway line to Bombay. Although there are no plants in Bombay province, the financial and marketing control of a good part of the cement production of India is centered in Bombay city.

Sawmills of some importance are the McKenzies Ltd. and the Sundardas Saw Mill in Bombay, and the Dandeli Government Saw Mill in Kanara.

It has been reported that the following building materials are available in Bombay, although they are under priorities: brick, stone, sand, cement, lumber, and asbestos roofing. (Steel and iron materials on the whole are not available.)

Ordnance Factories.

[Secret detailed information can be found in certain government of India reports and other material on file with the American Technical Mission.]

Of the six ordnance factories in India before the war, one was in Western India, the Ammunition Factory at Kirkee, a suburb of Poona.

Since the supply of electrical energy, although inadequate, is relatively large in the Bombay area, some concentration of munitions production is taking place there. There is a supply station of the Tata Power Co. at Kalyan, a junction of the G.I.P., 34 miles northeast of Bombay.

The B.B & C.I. railway workshops at Dohad have been given over entirely to war production. Those at Parel, both of the B.B. & C.I. and of the G.I.P., the number 6 shop of the G.I.P. at Matunga, and the M. & S.M. shops at Hubli are all partially engaged in production of munitions.

CLASSIFICATION ~~CONFIDENTIAL~~
Changed to
UNCLASSIFIED

Since the motor car industry (assembly) is already concentrated in Bombay, it offers a foundation for the production of various kinds of military motor vehicles. However, the production of engines has not been undertaken.

There is also a beginning of a chemical industry which can be expanded and diverted to war uses.

Clothing and Allied Industries.

[Since a number of pages have been devoted above to the cotton textile industry, it will be omitted here.]

Woollen mills in Western India employ nearly 2,000 workers, in a total of five mills, four in Bombay city and Thana, and one in Baroda. This is about one-fourth of the woollen mill industry of India. The Shree Dinesh Mill in Baroda now produces blankets entirely for the British government. Wool-carding and spinning are carried on in Belgaum, Dharwar, and elsewhere. However, the major part of the industry is cottage. Indian Finance states that in 1934 in India the number of persons employed in mills was 5,770, and in small factory and cottage industry 291,500. Consumption of wool by mills was 13.56 million lbs., by cottage industry 23.6 million lbs.

Western India also produces about one-fourth of the silk goods of India in a number of small mills chiefly in Surat and to a less degree in Ahmadabad, Bombay city, and elsewhere. The raw silk is not produced in Western India, but sericulture is being introduced in Belgaum. Artificial silk is a developing industry in India. Of forty mills represented in Silk and Artificial Silk Mills Association in 1939, 42 were in Bombay province. It is estimated that the mills employ about 25,000 workers, and the handlooms another 25,000. Production in 1940 was 55 million linear yards. However, in July 1942 only about 10,000 employees were working in the mills and the rate of output was about

CLASSIFICATION ~~CONFIDENTIAL~~ Changed to UNCLASSIFIED

11 million yards per annum. The slump was due to lack of rayon yarn, which was formerly imported from Japan and Italy.

Hosiery production of Western India is concentrated principally in Ahmadabad where there are several large mills.

Most of the clothes of Indians are either straight pieces of cloth produced in proper lengths by weaving mills, or are made by hand sewing. In 1937 only two clothing factories were reported for all India. The Army was clothed by the output of one factory, employing fewer than 800 men. In January 1942, eleven such factories existed for producing clothing, chiefly for the government, and 30 new types of fabrics were being made. One of these factories is in Bombay. Indian Information (September 1, 1941) stated that Bombay is the center of clothing production, having in 1941 an output of nearly one million articles, including shorts, shirts, trousers, blouses, great-coats, overalls, mosquito nets, etc.

There are several tanneries and leather works in India but no shoe factories unless recently established. (The government's Army-boot factory is in Cawnpore). In India shoes are ordinarily made locally by hand. New tanneries were established in Bombay in 1941. All tanneries are devoting 75 to 90 percent of their capacity to military requirements. Belting, pickers, picking bands, laces, chrome leather washers, and buffers are being made in Bombay.

Doubtless clothing is one of the military needs which can be met largely in India by domestic production.

Rope, twine, and string are produced in Ahmadnagar, Nasik, Poona, Satara, and Sholapur, chiefly as a cottage industry. More than 25,000 people worked at this craft in 1931. A coir-manufacturing movable school with modern equipment was established in Ratnagiri District in 1939 to train local workers in the making of coir products. Sunn fibre,

CLASSIFICATION
Changed to
~~CONFIDENTIAL~~
UNCLASSIFIED

produced in this area, is used to make a kind of hemp, marine oakum, used in shipbuilding. It is said to be better than jute but not as good as Manila hemp. India is the only supplier of Sunn fiber to the United States, whose imports increased from $62,000 in 1937 to more than $1,300,000 in 1941.

Food Industries.

Western India is not outstanding in factories producing food. Out of a total of 250,000 persons employed in such factories in India in 1937, fewer than 10,000 were in Western India. Of course a very large amount of food is produced on too small a scale to be reported in factory figures; the 1931 census reported that nearly 30,000 persons were engaged in food industries in Bombay province. Of these, 4,000 were engaged in rice grinding and husking and flour grinding, 3,200 in grain parching, 1,000 in sugar making, and more than 5,000 in sweetmeats and condiment manufacture.

The only large flour mills are the three belonging to the Wallace Flour Mills Co. in Bombay. There are many small mills in Bombay, Ahmadabad, Broach, and elsewhere, there being 11 registered as factories in 1937. The Bombay Survey Committee reported that excluding Bombay city, and counting only unregistered factories run by electricity, it found 153 flour mills and 30 rice mills in the province. In addition are other mills run by oil. Most flour mills, though small, now use machinery with power. These may be adequate to supply the bakeries--if wheat is plentiful; there is prospect of a shortage in 1942-43. In addition to the small rice mills mentioned above, there were 25 registered as factories in 1938.

Bombay city has a number of bakeries and biscuit manufacturers. The Bombay Labour Office visited 13, of which three were using power machinery. But there is very little excess supply above ordinary requirements. (Army requirements--even of the Indian Army--probably

CLASSIFICATION
Changed to
UNCLASSIFIED
~~CONFIDENTIAL~~

cannot be met. Plans are being made to relieve this situation.)

India's sugar and gur (raw sugar) factories are mainly in the United Provinces. Bombay province imports 20 percent of its gur and 80 percent of its sugar. However, there are several large mills in Western India crushing locally grown and imported cane. The cane area centers around Poona, Nasik, and Ahmednagar, an area which is largely canal irrigated. In 1941-42 the estimated production of sugar was 89,900 tons, and of molasses 36,000 tons in Bombay province. Ahmadnagar alone had over 70 small gur factories and four sugar factories in 1938. There is a large sugar mill also in Sholapur, one in Navsari, one in Kolhapur, and one in Phaltan. In 1940 several old plants were renovated and expanded, and a new refinery with a crushing capacity of 200 tons per day started in Bombay. In March 1942, Bombay had sugar stocks of 15,600 tons. The production of sugar in India could be greatly increased. The possibility of making alcohol from molasses is being explored by the Bombay government.

Bombay is relatively important in dairy industries. The United States Tariff Commission reported that there were in 1938, five plants producing dairy products in India, four of them in Bombay. As a matter of fact, Thacker's Directory lists more dairy companies in Bombay, Ahmadabad, Kaira District, and Baroda as "manufacturers of butter and casein." Poona is also important in butter production. India is at present just about self-sufficient in the production of butter.

The milk output of Bombay province is estimated at 1,250 million pounds. Of this 40 percent goes to the manufacture of ghi, 26 percent to the manufacture of desiccated milk, 26 percent is consumed as milk and in tea, and 7 percent is used for butter manufacture. The casein produced is largely exported; it could be consumed domes-

CLASSIFICATION
Changed to
~~CONFIDENTIAL~~
UNCLASSIFIED

tically if the veneer, ply wood, match, and other industries in which it is used were expanded. Evaporated milk is imported.

An important product is ghi (clarified butter) used very largely by the Indians. A vegetable ghi is also made from oil seeds, chiefly groundnuts. The Swastik Oil Mills, Ltd. in Bombay, employing about 400 persons, is the largest concern. There are many oil crushing and refining mills, employing in all over 4,000 men; but this includes makers of industrial and illuminating oil as well as the edible product. Oils are made from groundnuts, castor seed, and gingelly, as well as cotton seed. The chief concentration of oil mills is in Khandesh, where groundnuts are largely grown. The consumption of groundnuts in Bombay fell from 50,000 tons in the last quarter of 1941 to 27,000 tons in the first quarter of 1942. This was due largely to business uncertainty and lack of containers and tank wagons. All-India exports of groundnuts declined 60 percent in 1940-41 as compared with 1938-39. A relief scheme for cultivators was set up by the government. The consumption of castor seeds during the last quarter of 1941 was 2,250 tons, and of sesamum, 1,800 tons. Very little crushing of cotton seed takes place in Western India. Cotton seeds are fed, uncrushed, to cattle.

Due chiefly to lack of shipping space, cashew nuts are being sent in only small amounts to Bombay, and the cashew shell-oil industry in Malven (Ratnagiri, center of cashew nut business) is inactive. The cashew nut factories in Marmagao are closed down.

There are no statistics on meat production in India. Ordinarily butchering is done on a small scale by local butchers, who are usually Muslims. In Bombay city the municipality maintains a slaughter-house at Bandra. Here the animals are thoroughly examined both before and after slaughtering. In 1937-1938 there were 833,921

CLASSIFICATION
Changed to
UNCLASSIFIED

animals imported into Bombay Municipality for slaughter. The city also got in addition about 20 buffaloes a day from the slaughter house in Kurla, it maintains a pork slaughter house in Arthur Road where 10 to 12 animals were slaughtered daily. These figures have increased recently. Animals being slaughtered daily at the Municipal Slaughter House are: sheep and goats, 2,500 to 3,000 (pre-war, 2,000 to 2,200); cows, 250 (pre-war, 125); water buffaloes, 35 (pre-war, 20 to 30). The meat, graded and stamped by the government, is sent by lorry to the various markets in the city.

Poultry farming is undeveloped. In 1935 a society for its encouragement was started. Eggs are graded under the Marketing Act. The supply of poultry and eggs for Bombay city comes largely from the Deccan, Hyderabad, and Madras Presidency.

Fish. In Bombay city, fish are brought to the markets from the many local ports. During the monsoon, when the local supply is limited, supplies packed in ice are brought by rail from Gujarat towns, and by sea from Jamnagar and Verawal in Kathiawar. For details see in paragraph 31.

An increase in refrigeration is making available more and better meat and fish.

The following food supplies are procurable in the vicinity of Bombay city: beef (including buffalo), mutton, pork, fish, rice, flour, potatoes, fresh vegetables, fruit, coffee. Milk and canned goods can not be amply supplied.

Note should be taken of the opinion expressed in the General Survey of India (pp. 164-165) that any substantial amount of food cannot be taken from the normal Indian consumption without dangerously lowering the already low per capita food intake. If foreign contingents are to depend upon local food supplies, those supplies must somehow be increased.

CLASSIFICATION [redacted]
Changed to
UNCLASSIFIED

General.

The Capital Index of Indian industrial activity shows considerable fluctuation from September 1939 to the present, with a gradual trend upward until the end of 1941, and a rather decided drop in 1942. Consumption of electricity, which reflects industrial production, reached 177 (1935 = 100) in November, 1941, declined to 146.8 in May 1942, and rose to 165.7 in June. The number of factories in India rose from 2,495 in 1938, to 3,120 in 1939, and to 3,318 in 1940.

In a study of Bombay's economic potentialities, the following industries were suggested as having considerable possibility of development: artificial silk, textile accessories such as bobbins, paper from bamboo pulp, pasteboard from rice husks and ground-nut shells, machinery and machine tools, fruit canning, leather, cigarettes, chemical, electro-chemical, and engineering.

There are in Bombay a number of organizations which could give information about industrial and commercial matters. The Bombay Chamber of Commerce is chiefly European; the Indian Chamber of Commerce is Indian in membership. There are also a French Chamber of Commerce, established in 1921, and the East India Section of the London Chamber of Commerce. The Middle Asia headquarters of Rotary International are in Bombay (Secretary, H. W. Bryant, Brabourne Stadium, Churchgate.) There are Rotary Clubs also in Ahmadabad, Baroda, Poona, Sholapur, Surat, Hubli, Rajkot, and Okha.

CLASSIFICATION ~~CONFIDENTIAL~~ Changed to UNCLASSIFIED

33. Utilities.

Electricity is used in India chiefly for industrial (as against domestic) purposes. Some idea of India's standing as regards per capita consumption of electricity is given by the Director of Industries, Baroda: Baroda, 2 units; India, 7 units; Norway (the highest), 2760 units.

The Indian Finance Year Book (1934) states that Bombay is the most fortunately situated part of India from the point of view of hydro-electric power. The total installed plant capacity in Bombay province (not including self-contained factories) is said to be 310,000 kw. (in all India, 1,354,000 kw., or if electricity produced by industries for their own consumption be added, 2,700,000 kw.) The capacity of the Bombay industrial area is 87,540 kw. (steam) plus 183,500 kw. (hydro), totalling 271,040 kw. This area contains the greatest hydro-electric schemes in India--those of Tata Sons, Ltd.--which serve Bombay, Thana, Kalyan, and Greater Poona. Their normal capacity is 246,000 horsepower. They consist of the following:

1. Tata Hydro-Electric Power Co., Ltd. a few miles from Bombay. The water storage (in lakes) and the hydraulic works are near Lonavla, in the Bhor Ghats, 2000 feet above sea-level. The power-house, where there are 5 turbines, is at Khopoli, at the foot of the Ghats. Its normal capacity is 48,000 kw. or 64,300 hp. This power is carried to Bombay over aerial transmission cables at a pressure of 100,000 volts, crossing several large streams on steel towers.

2. Andhra Valley Power Supply Company, Ltd., with a dam just north of the lakes of the Tata Hydro-Electric Power Co. The generating station is at Bhivpuri, and the energy is transmitted to Bombay over a 56-mile transmission line. This system con-

CLASSIFICATION ~~CONFIDENTIAL~~ Changed to UNCLASSIFIED

tributes an additional 48,000 kw.

3. The Tata Power Co. Ltd., some miles southeast of Bombay on the Nila-Mula River, developed in 1927. Its capacity is 87,500 kw. or 117,000 hp.

All the power is brought to the receiving station in Parel.

These companies are jointly managed by the Tata Hydro-Electric Agencies, Ltd. They supply the electricity for most of the industries in Bombay. They furnish the energy used by the B.B. & C.I. Railway for their suburban electrification, and by the G.I.P. Railway in Bombay city and for its main line up to Kalyan. They furnish the energy for the Bombay Electric Supply and Tramways Co., the Poona Electric Supply Co. (both of which have closed down their steam generating plants), and licensed distributors in Thana, Kalyan, and the Bombay suburbs. The rate is 0.4 anna per unit.

Since the Bombay area is a center for the electricity supply, it is a natural spot to extend the production of goods immediately necessary; many expansions and new plants have been already built or are planned.

Even though the supply of electricity here is not adequate for a greatly increased demand, there being very little reserve power, and even though too great concentration of war industries has distinct disadvantages, any alternative is strictly limited in its possibilities. Therefore more generating capacity in this area is needed and several new generators are on order. A small extension to the Tata system has been planned which will provide an additional 16,000 kw. peak, or 130 million kw. per annum. Most of this increased power is already needed by old customers, and even if this increase (which will be available in 1943) satisfies immediate demands, any considerable future expansion of production will require either more generating plants or a diversion

CLASSIFICATION
Changed to
UNCLASSIFIED
~~CONFIDENTIAL~~

of electricity from present consumers. In April 1942, an electrical control was set up in India; no new connections are allowed except with a permit certifying essentiality.

The Bombay Survey Committee stated that there were (1939) 66 electric supply companies in Bombay province, of which 12 had only recently been started. The following table gives the production figures (in millions of units) and geographical location of these companies:

	No. of Companies	Units Generated	Units Sold	Units sold for industrial purposes
Bombay city	4	586.0	503.0	284.0
Northern Division	18	24.6	23.9	17.7
Central Division	31	4.4	3.8	2.2
Southern Division	13	2.0	1.6	0.7
Totals	66	617.0	532.3	304.6

(Eight of these companies got their supply from the Tata System.)
These figures show that 93 percent of the energy utilized for industrial production in the province is consumed in Bombay city.

The provincial government a few years ago ordered a survey of the power resources of the whole province with reference to the possibility of establishing large central thermal and hydro-power houses and an interlinking grid system, so as to supply electricity widely at cheap rates.

The Hydro-Electric Survey of India mentions the following sites in Bombay province for possible development (grouped by regions): (1) in Kanara District, on the Kalinadi River near Kheda village; on the Bedti River near Magod village; on Bene Nala, on the Sirsi-Kumta Road; on the Kaneri River about 10 miles from Kumbharwada; (2) on the Hiranyakshi River about 38 miles from Belgaum; on the Mahadeo River 17 miles from Khanapur in the Belgaum District; (3) on the Urmodi River near Satara; on the Venna River near Mahableshwar; (4) on the Pravara River near Bhandardara storage works in Ahmadnagar District; (5) in

CLASSIFICATION
Changed to
UNCLASSIFIED

~~CONFIDENTIAL~~

Nasik District, on the Damanganga River near Umbrale; on the Vaitarna River near Dhargaon Village; (6) on the Girna River, near Girmal village in Sunat-Dangs.

In addition to the Tata System, the following are generating and transforming stations in Western India:

Town	Company	Kw.	Motive Power	Employees
Ahmadabad	Ahmadabad Electricity Co.	31,000	steam	
Ahmadabad	Sabarmati Power Station	15,000		147
Amreli	Amreli Electric Supply Co.	384	Diesel	
Broach	Electric Supply & Development Corp.	752	Diesel	23
Baroda	State Electric Power House	2,000	Diesel	
Godhra	Godhra Electricity Co.	500	steam	25
Kalyan	G.I.P. Kalyan Power House			225
Belgaum	Amalgamated Electricity Co.	524	Diesel	49
Nasik	Deolali Electric Supply Co.	1,200	Diesel	29
Sholapur	Sholapur Mills Town Electric Depot	250	steam	60
Bhusawal	G.I.P. Railway Power House			49
Hubli	Hubli Electricity Co.	600	Diesel	33
Dharwar	Electricity Supply Co.	130	Diesel	43
Surat	Surat Electricity Co.	3,624	Diesel	38
Kolhapur	Electric Power House			50
Wadhwan	Jhalawar Electric Power Supply Co.	296	Diesel	31
Limbdi	Electric Power & Supply Co.			30
Mehsana	Mehsana Electric Supply Co.	384		25
Kadi	Electric & Supply Co.			20
Sidhpur	Electric & Industrial Co.			32
Bhavnagar	Bhavnagar State	525	steam	

CLASSIFICATION Changed to UNCLASSIFIED

Bulsar	Ahmadabad Electric	296	Diesel
Dhrangadra		1,235	steam
Dohad	Dohad Electric Supply Co.	240	Diesel
Godhra	Godhra Electricity Co.	500	steam
Gadag	Gadag Electric Supply Co.	220	Diesel
Jamnagar		840	Diesel
Morvi	Electric Supply Works	653	Diesel
Nadiad	Electric Supply Co.	360	Diesel
Navsari	Electric Supply Co.	400	Diesel
New Goa	Services Autonomos de Electricidade	550	Diesel
Satara	Electric Supply Co.	200	Hydro

(For other small stations and additional data see Appendix to General Survey of India.)

Oil. The Bombay textile industry consumes most of the 350,000 tons of furnace oil used in India. For the 300,000 tons of Diesel oil used by industries annually, no Bombay figures are available. The Department of Industries states that in 18 districts of the province (excluding Bombay city and suburbs) there were 1600 engines working on oil at the last report.

Coal. Imports of coal into Bombay, both by sea and land, are given in the following table, taken from the 1939 Report of the Bombay Chamber of Commerce:

CLASSIFICATION Changed to UNCLASSIFIED

A. By sea (tons):

From	1933	1935	1937	1939
Europe	2,945	6,190	14,240	200
Australia	2,130	1,800	2,751	
Japan	335		469	
Africa	3,920	7,143	8,643	17,006
Other				285
Total	9,330	15,133	26,103	17,491
Calcutta	419,238	466,790	215,058	412,053
Total by Sea	428,568	481,923	241,161	429,544
B. By rail:	19,526	19,875	130,113	232,294
Grand Total	448,094	501,798	371,274	661,838

The Review of Trade (1938-39) says 141,900 tons were shipped from Bombay in that year "for the use of steamers engaged in foreign trade." This was out of a total for India of 632,000 tons used for bunkers. How much coal was used for industry in the Bombay area we do not know. The Department of Industries in its last report gave the number of steam boilers in Bombay province as 1,910.

Gas. The use of gas in Western India is confined to Bombay city. The Bombay Gas Company states that some 11,000 small concerns use gas for power. This is apparently the only gas company in Western India. It has a paid-up capital of £300,000, and a labor force of 458.

Ice Plants. The 1937 survey of Large Industrial Establishments lists two ice and aerated water plants in Ahmadabad, seven in Bombay city, and none elsewhere in Western India. Doubtless the figures would be somewhat larger today. Thacker's Directory mentions an ice factory in Surat.

In this connection reference may be made to the refrigeration plants in the Bombay markets mentioned above (paragraph 32). That at Crawford Market uses the ammonia system, with a light-foot compressor and a 60 horsepower electric engine. It has four chambers, each 4200

CLASSIFICATION
Changed to
UNCLASSIFIED ~~CONFIDENTIAL~~

cubic feet, and each with a capacity of 21 tons of fish or 33 tons of fruit. Two chambers are reserved for fish and mutton, two are used for fruits, vegetables, and eggs.

There is a private cold storage plant in Mint Road (built in 1933) and one for fish and fruit in Kermani Market, both of which manufacture ice. The Bombay Municipal Corporation also has refrigeration rooms at Chowpatty Market, in addition to those at Crawford.

It has been reported that the refrigerating facilities of Bombay city consist of 286,000 cu. ft. at temperature 15° to 17° F.
43,000 " " " " 35° to 45° F.
and that none of this space is at present available. By carrying out some reconstruction an equal additional amount could be made available very soon.

The creation of a cold storage and refrigeration plant at Bombay was recently recommended.

Water Works. The only water pumping stations listed in Large Industrial Establishments are:

Poona Water Works, employing 117 men, and Dudheshwar Water Works, Ahmadabad, employing 34 men, both apparently for cantonments.

Although little information is available regarding water supplies in the towns of Western India, one can discover from statistics of water rates and expenditures on water systems that the following towns in Bombay province have a municipal water supply:

Ahmadabad	Kapadvanj	Panvel
Ahmadnagar	Karad	Pen
Alibag	Kurla	Poona
Bandra	Lonavla	Rander
Barsi	Matheran	Ratnagiri
Bhiwandi	Mahableshwar	Roha-Ashtami
Bijapur	Nandurbar	Satara
Bombay	Nargund	Sholapur
Chiplun	Nasik	Sirur
Dharwar	Navalgund	Surat
Dhulia	Nipani	Telegaon
Hubli	Pandharpur	Thana
Jalgaon		Trimbak

This information is not at hand for the rest of Western India.

(11053)

CLASSIFICATION
Changed to
UNCLASSIFIED

The following spent a fair amount for water systems, under the heading capital outlay in 1937-1938: Broach (this must have been to introduce a system), Sholapur, Bijapur, and Chiplun.

The Corporation of Bombay has constructed a reservoir on the Tansa River 67 miles northeast of the city for the municipal water-supply. This is an addition to the two lakes near Vehar and Powai, at both of which there are water-works. A dam, 118 feet high, and 2 miles long, creates a lake supplying 33 million gallons daily. New 6-ft. mains have been laid down; they are carried over the Sion Causeway to the Island. Kurla and Bandra both get their water from the Bombay municipality. Thana is supplied with water from Lake Pokharan.

Poona is supplied with water from Kharakwasla Reservoir and Fife Lake, 15 miles southwest of the city. The dam across the Mutha River was the first of the large dams in the Deccan. It feeds Mutha Right Bank Canal and gives drinking water to Poona city and cantonments. Sholapur receives its water from Ekrukh Tank, 6 miles wide, formed by an embankment across the Adhela River (also used for irrigation). In 1938 the town was considering plans for increasing this supply, which may by now have been carried out. Water is conveyed to Satara by pipes from a hill 4 miles to the west. Surat enlarged her mains to improve the water-supply in 1934-35. Bijapur has water works 4 1/2 miles northwest of the town.

Ahmadabad is supplied with filtered water obtained from wells sunk in the bed of the Sabarmati River. There was an increasing demand for water, and in 1938 the city constructed two underground tanks holding a million gallons each, making the total water storage 4 1/2 million gallons. The city's income from water-rates was Rs. 1,750,000.

Baroda is supplied with water from an artificial lake,

CLASSIFICATION CONFIDENTIAL
Changed to
UNCLASSIFIED

Ajwa, 12 miles from the city. Bhavnagar has a reservoir and water works and is a rather modern town. Gondal has waterworks for both irrigation and water supply. Northeast of Rajkot are the Victoria Jubilee Waterworks (for the Civil Station) and the Lalpuri Irrigation works, for Rajkot city.

Sanitary Installations. Vera Anstey says (Economic Development of India, p. 499), "In Bombay, where more has perhaps been done to improve conditions than in any other Indian town, sanitation is still extremely primitive in certain districts." In some quarters, there are no sewers.

Ahmadabad has a drainage system in both city and suburbs. The Bombay provincial government, in mentioning various sanitary and other improvements in Ahmadabad, stated (1938), "The administration of Ahmadabad Municipality towers above all others in the magnitude and imagination of its schemes, its drive and all round general efficiency." This may indicate a correction of the situation existing in 1935 when, sewage disposal being inadequate, the surplus was dumped into the Sabarmati River.

Poona adopted a flush system of drainage in 1930 and has continued to spend money on improving its system.

In 1938 a loan of Rs. 775,000 was sanctioned for a drainage scheme in Sholapur. In the same year a drainage scheme was being planned in Surat; Bandra spent Rs. 116,800, which fact must indicate that it now has a drainage system; and there were small outlays in a large number of provincial towns.

None of this should be taken to indicate, however, that there is anywhere an installation of adequate sewage or sanitary systems, a field in which Indian towns are usually backward.

 ~~CONFIDENTIAL~~

CLASSIFICATION
Changed to
UNCLASSIFIED

34. Railways.

Railway transportation, especially from the port of Bombay to all parts of India, is vital to the economic life of Western India. There are three important Class I railway systems lying in part in this area: the Great Indian Peninsula; the Bombay, Baroda, and Central India; and the Madras and Southern Mahratta. However, the total railway mileage in Bombay Province is only 2,390, less than 6 percent of that of India. The southern part of the area has inadequate facilities, and the coast of the south has no railways at all. The northern and eastern portions are fairly well served.

The principal railway of Western India is the Great Indian Peninsula, with 3,134 miles of broad gauge and an additional mileage of 561 in subsidiary lines. This railway was purchased by the State in 1900, and has been state-managed since 1925. The main line runs from Bombay to Kalyan, a junction 34 miles northeast of Bombay, where it branches northeast and southwest.

The northeast branch goes via Bhusaval to Itarsi, thence (a) north to Jhansi and Delhi, and (b) northeast via Jubbulpore to Naini (Allahabad), where it meets the East Indian Railway going to Calcutta. From Bhusaval the main line also continues east to Nagpur where it meets the Bengal and Nagpur Railway going to Calcutta. The line is double tracked from Bhusaval to Itarsi (464 miles), and from Bhusaval to Nagpur (520 miles). From Wardha, on the Bhusaval-Nagpur section, a branch turns south to Balharshah where it meets the Nizam's State Railway going to Bezwada, and thence to Madras.

From Kalyan, the southeast branch goes via Poona and Sholapur to Raichur, where it joins the Madras and Southern Mahratta Railway. It is double tracked and electrified from Bombay to Poona (119 miles). A branch line, running almost north and south from

CLASSIFICATION
Changed to
UNCLASSIFIED

Manmad to Dhond, connects the northeast and southeast lines in the eastern part of Bombay province. Also a line from Jalgaon (near Bhusaval) connects with the Tapti Valley Line of the B.B. & C.I. at Amalner.

Thus this system offers direct broad gauge connections with Delhi, Calcutta (over two routes), and Madras.

The permanent way consists largely of 90 and 100 pound steel rails laid on cast-iron pot ties. The sharpest curve on the main line is of 857 feet radius. The gradient is not greater than 1 to 100, except where the line climbs the Ghats; there it reaches 1 to 37, one of the weaknesses of the line.

The chief freight carried on the G.I.P. is cotton, coal, grain, salt, wood, oilseeds, cement, fodder, iron, and steel. It is the only railway with a sizeable number of covered and open wagons of 36-ton capacity. In 1941 this road carried 12,198,000 tons of freight, of which 7,373,000 tons originated on the line. The speed of freight-trains is 12.9 miles per hour for steam trains and 16.3 miles for electric trains. The preliminary estimates for 1941-42 indicate that the number of passengers carried increased by 33 percent, and freight-ton-miles by 55 percent, over 1938. This line shows the heaviest traffic increase in the war period.

The Bombay, Baroda & Central India Railway, also government-owned and managed, consists of 1,035 miles of broad gauge lines, 1,879 miles of metre gauge lines, and 72 miles of narrow gauge lines. Included in the broad gauge mileage are (1) the Main line, running from Bombay through Baroda and Ahmadabad to Viramgam; by a branch of 22 miles to Kharaghoda on the Rann of Cutch, to facilitate the collection of salt; and (from Bombay to Baroda) to Agra and Muttra, thence over the G.I.P. tracks to Delhi. There is also a short line from Baroda

CLASSIFICATION ~~CONFIDENTIAL~~
Changed to
UNCLASSIFIED

to Kathana. The chief metre gauge section in this area is from Ahmadabad through Ajmer to Delhi (539 miles). It is this line which gives direct metre gauge connection from Kathiawar to north and east India. There are quadruple lines, electrified, from Bombay to Borivli, 19 miles north, to serve the heavy suburban traffic. There are double tracks on to Baroda. The B.B. & C.I. has several small branch lines, or state-owned and privately-owned lines which it manages. These include the Tapti Valley, a broad gauge road running from Surat to Amalner (155 miles), and a metre gauge road from Ahmadabad to Khed-Brahma (89 miles).

The permanent way of the broad gauge lines consists of 82-pound bull-headed and 90 pound flat-headed steel rails on wooden and steel sleepers. The sharpest curve is of 1500 ft. radius. The gradient is not more than 1 to 200 except at bridge approaches. As this line runs not far from the sea, between Bombay and Baroda, it crosses many streams, sometimes by long bridges.

The permanent way of the metre gauge line has 50 lb., 60 lb., or 75 lb. rails on wooden or steel ties. The gradient is not greater than 1 to 150.

The chief freight carried on this line is coal, grain, marble, stone, cotton, and cotton goods. In 1941 it carried 10,583,000 tons of freight, of which about half originated on the line.

The Madras and Southern Mahratta Railway is government-owned but privately managed. In addition to giving the above-mentioned broad gauge connection with Madras at Raichur, it has a metre gauge line running from Poona to Hubli and Harihar (with a 51-mile branch from Londa to Mormugao, the Portuguese port), and from Sholapur to Gadag and Hubli. These lines connect with Bangalore and Madras.

The permanent way of the M. & S.M. railway is of 75 lb., 80 lb., and 90 lb. steel rails, mostly on wooden ties. The gradient is

CLASSIFICATION Changed to UNCLASSIFIED

about 1 to 100, except in the Ghats where it is 1 to 80. In 1941 this road carried 6,875,000 tons of freight, of which 3,394,000 originated on the line.

The gross annual earnings of Class I railways are Rs. 50 lakhs or more.

Of Class II railways the most important are found in the Western India States Agency, forming the railway system of Kathiawar.

(1) The Bhavnagar State Railway (metre gauge, total mileage of 307) connects Bhavnagar port with Dhandhuka, whence there is a connection to Ahmadabad, and also runs to the port of Mahuva. There is, in addition, a tramway from Bhavnagar to Mahuva (68 miles).

(2) The Gaekwar's Baroda State Railway System consists of 308 miles of metre gauge and 356 miles of narrow gauge line, owned and managed by His Highness's Government. (The B.B. & C.I. Railway runs north and south through Baroda, supplying transportation to parts of the Navsari, Baroda, and Kadi Districts). The principal sections are (a) Viramgam to Taranga Hill, Mehsana to Kakosi, and other lines centering in Mehsana, in Kadi District (255 miles); (b) the section in Baroda District centering around Dabhoi (223 miles); (c) a line from Billimora to Waghai (40 miles); (d) that in Southern Kathiawar from Dhari through Amreli to Khijadiya (53 miles). Only the last of these belongs to the Kathiawar System.

(3) The Jamnagar Railway system, 199 miles, all metre gauge, (including the Okhamandal line, 37 miles, owned by Baroda State, running to Okha Port). This system connects Rajkot & Jamnagar with Bedi Bundar and Rozi (ports), and also with Okha Port. Indian Engineering calls it "small but very efficient."

(4) The Junagad State Railway, 229 miles of metre gauge line connecting Junagad with Veraval and Delvada ports and with other towns in southern Kathiawar.

CLASSIFICATION
Changed to
UNCLASSIFIED

(5) The Morvi Railway, 132 miles of metre gauge line connecting Wadhwan, Rajkot, and Morvi with Navlakhi port. There are also 58 miles of tramway in Morvi State.

(6) Gondal Railway, 213 miles of metre gauge, connecting Rajkot and Dhasa with Porbandar.

The railway system of Kathiawar taken together is certainly adequate, connecting all the small ports by metre gauge line with Mehsana or Ahmadabad, at which points it meets the metre gauge B.B. & C.I. line to Delhi. Freight can therefore be sent from these ports to northern and eastern India without re-loading.

The roadway has chiefly 40 or 50 lb. steel rails on teak sleepers. The ballast is crushed stone or kankar (gravel).

Another Class II railway in Bombay is the Barsi Light Railway (narrow gauge) which runs a distance of 203 miles from Latur, in Hyderabad (Deccan) 36 miles from the Bombay border, to Miraj, whence there is a metre gauge branch of the M. & S.M. Railway to Kolhapur.

Class II railways have gross annual earnings of Rs. 10 to 50 lakhs.

Class III railways in this area include the Cutch State Railway, 72 miles of narrow gauge lines; and the Bombay Port Trust Railway, consisting of 14 miles of broad gauge line running to the docks and 104 miles of sidings. The gross annual earnings of Class III railways amount to Rs. 10 lakhs or less.

We find, in summary, five tracks leading out from Bombay city, three of the G.I.P. and two of the B.B. & C.I., connecting the port with all parts of India; and lines connecting the small Kathiawar ports with Delhi and the east. Both the G.I.P. and B.B. & C.I. are electrified for some miles out of Bombay, and have double (or quadruple) tracks. On the other hand, the southern half of Bombay

CLASSIFICATION ~~CONFIDENTIAL~~
Changed to
UNCLASSIFIED

Province, and the hinterland in general, is poorly served with railways. Furthermore, the existence of three different gauges (or two, since there is not much narrow gauge line) is a great handicap in the transport of goods and makes complete exchange of rolling stock impossible. Moreover, the metre gauge lines of the north and south have no connection and therefore no interchange of rolling stock.

Railway Shops and Yards. (Only those in Western India are included). The chief workshop of the G.I.P. is at Parel, a northern section of Bombay city, where locomotives are repaired. There were 3,570 employees in 1937. Two miles farther north at Matunga is the workshop for the repair of freight and passenger cars. This shop employed 2,908 in 1937. In Manmad, Surat District, the G.I.P. has engineering works employing (1937) 653 men, and in Igatpuri a brake shop and locomotive works.

The B.B. & C.I. has a large, up-to-date workshop at Dohad for the repair of both locomotives and carriages and for the construction of wagons. It has also a locomotive repair shop and a carriage and wagon shop in Bombay. These three shops employed 1,704, 2,013, and 809 men respectively in 1937. Several small shops of the B.B. & C.I. are in Bombay, Parel, and Ahmadabad.

The M. & S.M. has its chief workshop for repair of all metre gauge rolling stock at Hubli. In 1937 there were 2,437 men employed.

The G.I.P. has running sheds at Nandgaon, Bhusaval, Dhond, Sholapur, and Kalyan. It has marshalling yards at Wadi Bundar (Bombay), Kurla, Bhusaval, and Kalyan, where a maximum of 1,040 cars a day were handled in the busy season before the war. The B.B. & C.I. has locomotive sheds at Bombay (electric) and Parel. Its largest marshalling yard is at Bandra. There are also yards at Bulsar, Baroda,

CLASSIFICATION Changed to UNCLASSIFIED ~~CONFIDENTIAL~~

and Ahmadabad. The M. & S.M. has running sheds at Hubli, Gadag, and Castle Rock, and a marshalling yard at Miraj. Barsi Railway Co. has a carriage and wagon shop at Kurduwadi, Sholapur District, employing 238 men (1937).

There is a railway workshop at Nawanagar and doubtless others in the Kathiawar States, but none is large enough to be listed under the Factory Act.

Recent Situation.

The quantity and quality of rolling stock are both inadequate; recent programs of replacement are behind schedule, some equipment has been sent out of India, and the railway workshops, being the chief engineering establishments, have become burdened with the manufacture of munitions. For remarks on rolling stock and capacity, and more facts regarding permanent way and gradients, see the general Survey of India.

The burden which the war has placed upon the railways is felt keenly in Bombay, the main doorway to India from the west, especially since the use of Calcutta as a port has been diminished. It was reported early this year that express freight from Calcutta to Bombay was taking 10 days against a normal 5, and ordinary freight 15 days. The Southern Chamber of Commerce reported to the Railway Board that the Coimbatore cotton mills could not get cotton from Bombay in less than two months. A priority system has been introduced but seems not to be strictly enforced. The first classes of goods in order of priority are (1) military supplies, (2) coal, (3) government non-military goods, (4) goods for ocean shipment. Other classes follow: The General Manager of the G.I.P. and Regional Director of Railway Priorities is said to have reported (August 1942) that only three to four percent of total railway cargoes arriving in Bombay were non-priority; for the G.I.P. system as a whole the figure was 8 percent.

CLASSIFICATION ~~CONFIDENTIAL~~ Changed to UNCLASSIFIED

G.I.P. announced last February that passenger service would be curtailed.

Congestion of goods traffic in Bombay has pressed upon storage facilities to such a degree that special measures have had to be laid down by the government to restrict importation of goods into the city. The government has asked shippers to keep goods out of Bombay unless they are to be used or exported immediately. Prior claims on storage space are allowed government orders. Price control over godown (warehouse) space has been initiated. Only the greater use of Calcutta Port can offer measurable relief to Bombay; and in any case congestion of traffic will be unavoidable for the duration of the war.

(Railway systems can not be described or analyzed properly except as a whole; the present section is limited by that fact. The General Survey of India should be consluted on railways as a whole.)

The following tables are compiled from the report of the Railway Board, for 1940-41. In both tables, figures for the G.I.P., B.B. & C.I., and M. & S.M. are all-India figures.

~~CONFIDENTIAL~~

CLASSIFICATION
Changed to
UNCLASSIFIED

A. Financial

* Figures in millions

Railway Incl. Branch Lines	Capital Rs.*	Gross Earnings Rs.*	Net Earnings Rs.*	Rate of Earnings %	Gross Earnings Coaching Rs.*	Gross Earnings Goods Rs.*
G.I.P.	1,165	175	81	6.96	58.1	113.0
B.B. & C.I.	775	148	72	9.26	53.7	91.9
M. & S.M.	564	84	36	6.31	27.5	55.5
Baroda	50	5.2	1.9			
Bhavnagar	26	3.1	1.2	4.67		
Jamnagar	18	1.8	0.8	4.48		
Junagad	17	1.7	0.5	3.27		
Morvi	12	2.5	1.0	8.65		
Gondal	18	2.6	1.4	8.12		
Barsi	19	2.2	1.2	6.45		

B. Trackage

	Mileage by Gauges			Mileage			
	5' 6"	3' 3 5/8"	2' 6"	Single	Double or more	Sidings	Total
G.I.P.	5,386		217	2,756	808	1,164	5,603
B.B. & C.I.	2,033	2,478	253	3,246	263	954	4,765
M. & S.M.	1,532	2,112		2,886	53	645	3,645
Baroda		348	413	664		98	762
Bhavnagar		378		307		71	378
Jamnagar		225		199		26	225
Junagad		259		229		30	259
Morvi		171		132		39	171
Gondal		253		213		39	253
Barsi			225	203		22	225

~~CONFIDENTIAL~~
CLASSIFICATION
Changed to
UNCLASSIFIED

35. Roads.

Bombay is a terminus of two of the four Indian trunk roads. The northern one runs from Bombay to Thana, Igatpur, Nasik, Malegaon, Dhulia, and on to Delhi, meeting the Grand Trunk Road at Cawnpore. The southern one runs from Bombay to Thana to Poona, Satara, Kolhapur, Belgaum, Dharwar, and on to Bangalore and Madras. (These two roads run together from Bombay to Thana, about 20 miles.) From Poona an alternative route runs to Sholapur, and on to Hyderabad (Deccan) and Bezwada, where it meets the Calcutta-Madras trunk road. Even on these "best roads," one cannot be sure of uninterrupted passage especially in the monsoon period when sections may be flooded. But trucks can, and do, move steadily though slowly from Bombay to Cawnpore and Calcutta on a fairly good road.

A "main" road (hard-surfaced) runs from Panvel (a town on the Bombay-Poona trunk 50 miles from Bombay), on the west side of the Ghats, about midway between the trunk line and the coast. At Kolhapur it rejoins the trunk. From this road branches (hard-surfaced) run west to a number of small coast towns: Uran, Kolaba, Janjira, Ratnagiri, etc. Similarly, from Kolhapur south there are branches running from the trunk road to such coast towns as Devgarh and Marmagao.

There is no main road from Bombay north along the coast, until Navsari, whence a hard-surfaced road goes to Surat, Broach, and Jambusar. But there are a few branches running west or northwest from the trunk line. From Baroda there is a hard road north to Ahmadabad, but none south to Broach. The government of Bombay has sanctioned expenditure to convert an old railway bridge at Broach, over the Narbada River, into a single-lane road bridge. This will eliminate a very bad break in the road connections between Bombay city and Baroda.

CLASSIFICATION
Changed to
UNCLASSIFIED

There are several hard roads in Kathiawar which connect the port towns of Navanagar, Porbander, Veraval, and Diu with Rajkot and Ahmadabad. However, there is poor coordination between the states, and on the whole the facilities are inadequate. There are also a few miles of hard roads in Cutch, but they have no connection with other main roads.

The following figures (from the Indian Yearbook) give the mileage of roads publicly maintained, excluding municipal roads, as of March 31, 1942, for Bombay province:

Type	Mileage	
Modern surfaced (bituminous or cement)	596	
Water bound macadam	10,538	
Total hard-surfaced		11,134
Gravel, etc.	5,191	
Dirt--"fairweather" motor roads	2,465	
Dirt--unmotorable	781	
Total unsurfaced		8,437
Grand total		19,571

Figures given by the Bombay Survey Committee for January 1, 1939, are much smaller. They said there were 20,629 miles of roads in the Province, of which 4,300 were unmotorable and 1,583 additional motorable only in fair weather; there were 386 miles of hard-surfaced roads. Only 6,890 miles, or about one-third of the total, were maintained by the government. In many districts as much as 40 percent to 75 percent of the area is not served by roads.

For the Western India States more detailed information is available and is presented in the accompanying table (of 1938).

The designation "hard-surfaced" should not arouse too much hope. Often these roads are in bad repair, often there are delays at rivers, etc. However, they are "motorable." Unsurfaced roads (including gravel) even when motorable have the very great disadvantage of dust raised by the innumerable bullock carts as well as by the occasional motor car.

CLASSIFICATION
Changed to
UNCLASSIFIED

The meagreness of motor transport in India largely explains the relative backwardness of roads. As of March 31, 1940, there were in Bombay province a total of 27,957 motor vehicles in use; 18,350 motor cars and taxi-cabs; 1,638 motor cycles; 7,969 buses, lorries, etc. This compares with a total of 146,000 buses in the United States of which 87,000 are school buses and 55,000 common carriers.

Not until 1927 was a Road Development Committee appointed in India, and since 1929 part of the tax (customs and excise) on petrol has been put into a separate Road Development Account. In 1941, out of a duty of 12 annas per gallon, 2½ annas went into the road fund. This fund is distributed to the provinces for construction, but not upkeep, of roads. Bombay province receives about Rs.2,900,000 per annum. In addition, provincial and municipal funds are used. In all, Bombay province spent in 1938-39 Rs. 81 lakhs (8,100,000) for new construction and repairs; in 1939-40, 78 lakhs; in 1940-41, 76 lakhs; in 1941-42, 107 lakhs; in 1942-43 (budgeted), 114.4 lakhs. In 1941-42 using Rs. 1 million from the Special Development Fund, provincial roads were asphalted in 172 villages, and work was continuing in 38 more. However, because of war scarcity of tar and asphalt, no more can be undertaken. It would require an annual expenditure of Rs. 56 lakhs per annum for adequate maintenance alone. Bombay province has a long term program amounting to Rs. 35,000,000 but is making little progress on it.

According to the resolution on the Reports on Municipal Taxation and Expenditure of Bombay province for 1937-38, 52 municipalities failed to observe the policy of devoting proceeds of the wheel-tax to the construction and maintenance of roads. The same Resolution states that Ahmadabad asphalted 12 miles of roads that year, giving her a total of 52 miles of dustless roads. The streets of Ahmadabad are electrically lighted. The streets of Poona are wide and improved. Sholapur began asphalting her main roads in 1937-38. Surat increased

CLASSIFICATION
Changed to
UNCLASSIFIED

her expenditure on roads and also completed the replacement of oil street lights by electric ones, but the streets of Surat are narrow and winding except the one from the station to the castle.

A guide book to Bombay city refers to Mayo Road as "one of Bombay's few well-paved wide thoroughfares." Bombay Island and Salsette Island to the north are connected by two bridges in Mahim and Kurla Districts (the latter the Sion Causeway) at which are centered the highways and railroads. (The Sion Causeway also carries the water mains, and one principal power line parallels the bridge.) From Salsette to the mainland there are two main roads--one bridged, the other requiring the use of a ferry. With these meagre facilities, emergency transportation might become a serious problem. Because of the poor condition of the roads of the province, the government has ruled that the limit of ladon weight for a truck be 12,500 pounds.

Motor transport of freight is only 1½ percent of the total; railway transport is 98½ percent. By motor this freight averages 15 miles per hour, by railway 5 miles per hour, from consigner to consignee. (Good trains go 11 miles an hour not counting delays.) According to Capital, which gives this information, the "American business community prefers the former."

Trams and buses. Bombay city has an electric tramway system covering the city with 30,877 miles (as of 1935), all double-tracked, organized into 15 routes. Trams run from Colaba and the Fort to Grant Road, Parel, Dadar, Byculla, and the Docks. The rolling stock (1935) included 67 bogie double-deck cars, each seating 94 persons, 144 single-truck cars each seating 78 persons. There were in all 436 cars, which accounted for 5½ million car-miles run and more than 90 million passengers carried in 1936. The tramway system employs 4500 men.

CLASSIFICATION
Changed to
UNCLASSIFIED

Bombay city also has a bus system, organized into twelve routes. A few years ago it had 106 buses which were credited with 3 million car miles, and 18 million passengers were carried in one year.

No other city in Western India has a tramway system.

A steam-tram runs from Neral to Matheran, 13 miles. There is a tramway and also motor service to Nasik from the railway station, which is 5 miles from the town. Similarly the civil station, 3 miles from Wadhwan, is connected with that town by tram. A horse-tramway runs from the port Veraval to Patan (Somnath patan) also on the coast, 3 miles to the east, and formerly used as a port. In Dhoraji there is a tramway from the railway station to the town.

Buses are used extensively, mostly for short distances, but there are no detailed data of routes, etc., available in this country. The following figures give the number of certain public motor vehicles in some parts of Western India. One must remember that buses in India are small compared with American buses. It will be noted that 1940 showed a decline from 1938, doubtless due to war conditions and their effect on the imports of motor vehicles.

	Buses and Taxis			Lorries		
	1938	1939	1940	1938	1939	1940
Bombay	4412	5575	4748	4030	4772	3890

	Taxis	Buses	Lorries
Baroda (1938	47	479	129
(1940	47	360	152
Kolhapur (1938		309	61
(1940	15	218	63
Bhavnagar (1938	22	19	27
(1940	31	17	21
Porbandar (1938	39	30	9
(1940	37	30	29
Rajkot(1938	98	7	
(1940	83	18	8
Gondal (1938	87	31	17
(1940	75	27	10
Kutch (1940		50	

(11053)

CLASSIFICATION
Changed to
UNCLASSIFIED

CONFIDENTIAL

As a war measure, the government has drawn up a plan to take over private lorries for transporting materials connected with military works. Compensation of Rs. 275 to 325 per month per vehicle, plus allowances on a mileage basis, is to be paid.

Garage facilities. Repair of motor cars is not very efficient in most of India. A few garages and repair shops are listed here, but these are only those large enough to be called "factories" (employing 20 or more people). There is no detailed information about them or others.

Bombay:

(a)Tardeo area:

Behramjee Nowrasjee Gamadia Parsee Auto Works.

Bombay Cycle and Motor Agency, Service Station.

(b)Colaba area:

Bharat Automobiles (Sassoon Dock)

United Motors, Ltd. (Arthur Bundar)

Colaba Bus Garage

(c)Chowpatty area:

International Motor Car Co. (French Bridge)

Bombay Garage (with a suburban branch in Santa Cruz)

(d)Also:

Swastik Garage (Kamdar Automobiles, Gowalia Tank Rd.)

Sakharam Yessoo Motor Repair Works (Opera House).

Automobile Company, (5/12 Queens Road)

French Motor Car Co. (New Queens Road)

Ahmadabad:

Municipal Motor Workshops (Jamalpur Gate)

Poona:

Deccan Motor Service Co.

Bedford Motors (Sholapur Rd.)

Panchgani Motor Service (Arsenal Rd.)

CLASSIFICATION
Changed to
UNCLASSIFIED
~~Confidential~~

There are also small service shops in Kolhapur and Rajkot, and doubtless in many other towns of Western India.

~~CONFIDENTIAL~~
CLASSIFICATION
Changed to
UNCLASSIFIED

36. Shipping.

Western India has a long coastline, deeply indented by the Rann of Cutch and Gulf of Cambay in the north. Two important rivers, the Narbada and the Tapti, flow into the Gulf of Cambay and are navigable for a considerable distance, the Narbada for one hundred miles for small craft at all times and for larger craft during the rainy season. Many other rivers rise in the nearby hills and traverse the narrow coastal plain, breaking up the coast and affording numerous small harbors. South of Bombay city, on the Konkan Coast, the towns are poorly served by roads and not at all by railroads; therefore the daily or weekly steamer service to and from Bombay carries a great deal of passenger and cargo traffic. Some of these do not function during the four months of the monsoon, when the rivers are swollen and many of the small ports become unavailable.

Bombay is the only great port on this coast. It rivals Calcutta in normal times and is at present the premier port of India. Next in importance is a group of ports on the Kathiawar peninsula, which taken together can accommodate a fair amount of traffic. A good deal of shipbuilding--of river and fishing craft--has long been pursued on this coast. South of Bombay, Mormugao (or Marmugoa) is a good port; but it lies in Portuguese territory and its rail connections to north and east India are less direct. Finally, there are numerous small ports at present used chiefly by coastal steamers and fishing vessels.

Bombay Port.

The city of Bombay (population 1,490,000) lies on an island. Originally seven closely connected islands, Bombay and Salsette Islands are now separated from the mainland, where a bay is formed at the mouth of Thana Creek. It is a fine natural harbor, 14 miles long and 4 to 6 miles wide. For map see at end of this survey.

Until a century ago the port was merely a collecting center for other west coast ports. But with the establishment of regular

CLASSIFICATION
Changed to
UNCLASSIFIED
CONFIDENTIAL

monthly mail service to England and the introduction of railways connecting Bombay with the interior (both at the middle of the last century) its progress began. It was greatly stimulated by cotton trade during the American Civil War.

The chief exports are cotton, hides and skins, twists and yarn, grain (wheat), seeds (oil seeds), and manganese ore. The chief imports are cotton manufactures, hardware, metals (iron and steel goods), machinery, kerosene and fuel oil, and coal.

The tonnage loaded and unloaded at the docks (exclusive of that in the stream) averaged about 5 million tons per annum before the war. In 1941 the total amount handled was about 5 million tons, of which half was at the docks. In March 1942 almost 300,000 tons were handled at the docks, thus showing a definite increase. The estimated total which can be handled at the port with present facilities is 6,500,000 tons.

The war use of Bombay port may be indicated by the fact that in August 1941, 93 special military trains were brought alongside steamers at the docks, and 50,150 tons of military and naval stores were handled. Forty-five transports and ten government vessels were berthed for an aggregate period of 235 days.

The port is administered by the Bombay Port Trust, subject to the control of the government. The Trust is divided into many departments of which the Engineering, Docks, Railway, and Port Departments. are the most important. The managers of the departments are usually English. The Port Trust operates as a commercial concern as well as a public service body. The revenue of the Trust in 1938-39 was Rs. 23,818,411 and the expenditure was Rs. 23,307,214, leaving a surplus of almost Rs. 5 lakhs. Capital outlay during the year was about Rs. 1,100,000; capitalization, Rs. 190,000,000. The trade of the port for the year aggregated Rs. 1,460,000,000.

(11053)

CLASSIFICATION
Changed to
UNCLASSIFIED

~~CONFIDENTIAL~~

The depth of the harbor at the entrance is 35 ft., minimum depth in the main channel is 33 ft., mean level water spring tide. The anchorage depth is 17 to 37½ ft.

Docks. There are three wet docks, Prince's, Victoria, and Alexandra. There are two dry docks, Merewether and Hughes, operated by the Port Trust; and five other dry docks, including the Duncan, operated by the Royal Indian Navy, the Ritchie, owned by the P. & O. Steam Navigation Co., and the Mogul, owned by the British India Steam Navigation Co. There is also a privately owned patent slip. The Port Trust has deep-water tidal berths at three places.

1. Prince's Dock. Length of dock, 1,460 ft.; width, 1,000 ft. Ships 350 to 400 ft. long between perpendiculars, which draw not more than 20 ft., can be berthed. Width of entrance, 66 ft., width of passage (communicating with Victoria Dock), 64 ft. Depth on sill at mean high water spring tide, 27 ft., 10 in. No lock; one jetty; 30 acres of water; 5,960 linear ft. of quayage inside, 950 ft. outside; 7 cargo berths and 7 repair berths. Transit shed floor area, 449,735 ft., warehouse floor area, 207,760 sq. ft. Three oil bunkering berths, at Berths H and K and on the north end of the harbor wall.

2. Victoria Dock. Length of dock, 1,270 ft.; width, 1,000 ft. Ships 400 to 430 ft. long between perpendiculars, which draw not more than 24 ft., can be berthed. Width of entrance, 80 ft. Depth, 29 ft. 10 in. on sill, at mean high water spring tide. Twenty-five acres of water; 7,425 linear ft. of quayage inside, 805 ft. outside; berths for 14 ships. Transit shed floor area, 601,894 sq. ft., warehouse floor area, 223,728 sq. ft. No oil bunkering arrangements. A consular report states that the dock is so badly designed that ships lying at the jetty-ends block traffic to and from the intervening slips, due to the narrowness and closeness of the three jetties; also that rail facilities are very bad, consisting of perpendicular tracks branching

CLASSIFICATION
Changed to
UNCLASSIFIED

~~CONFIDENTIAL~~

from the main line from hand turn-tables and extending through the centers of the jetties.

3. Alexandra Dock. Length of dock, 2,600 ft.; width, 1,075 ft. Turning space for ships, 1,100 ft. by 1,075 ft. Ships not exceeding 475 ft. between perpendiculars, which draw not more than 32 ft. can be berthed. Entrance lock, 750 by 100 ft. Depth, 36 ft. 10 in. on inner sill, 40 ft. 10 in. on outer sill at mean high water springs. The approach to the dock has a minimum depth of 27 ft. at mean low water spring tide; depth at quays from 30 to 34 ft. Forty-nine and one-half acres of water; 10,000 linear ft. of quayage inside, 5,600 ft. outside, including Ballard Pier; one jetty, 1.500 ft. by 425 ft; berths for 17 ships. Transit shed floor area, 1,365,842 sq. ft., warehouse floor area, 468,471 sq. ft. There are 12 oil-bunkering berths. The railway serves all quays except at Berth 1. This dock is the newest, largest, and best.

4. Merewether Dry Dock (entered from Prince's or Victoria) is 525 ft. long by 64 ft. wide by 27 ft. 10 in. on the sill.

5. Hughes Dry Dock (entered from Alexandra) is 1,000 ft. long by 100 ft. wide by 35 ft. 10 in. on the sill, divided in the center so that it can be used as one or two docks.

6. Ritchie Dry Dock is 495 ft. long by 66 ft. wide by 18.3 ft. on sill.

7. The Mogul Dock is 66.5 ft. wide and can handle vessels up to 400 ft. long.

8. Duncan Dry Dock is 640 ft. long by 60 ft. wide by 23.7 ft. on the sill, and when alterations are finished can handle two destroyers in line.

Additional Dock and Port Facilities include:

1. Upper Bombay Dock, 200.9 ft. (another source says 256 ft.) by 47.8 ft. by 13.1 ft. on the sill, at high water, ordinary spring tide. Operated by the Royal Indian Navy.

CLASSIFICATION
Changed to
UNCLASSIFIED

2. Middle and Lower Bombay Docks (combined into one), the former 183 ft. (153 ft. on the bottom) by 51.9 ft. by 16 ft. on the sill; the latter, 256 ft. by 51.9 ft. by 16 ft. on the sill. Operated by the Royal Indian Navy.

3. Torpedo Boat Dry Dock, 160 ft. by 25 ft. by 13.1 ft. on the sill; opens into wet basin. Operated by Royal Indian Navy.

4. Small dock, operated by Mazagon Dock Company; 154 ft. (144 ft. on the bottom) by 36 ft. by 10.9 ft. on the sill.

5. Patent Slip at Mazagaon, 759 ft. extreme length; 250 ft. length of cradle. Owned by the Bombay Steam Navigation Company.

6. Patent slip, 200 ft. extreme length, for launches up to 80 ft. only. Owned by the government.

7. Sassoon Dock. Length of dock, 638 ft.; width, 240 ft. Water area, 3.45 acres. Entrance, 40 ft. wide. Depth of water over sill, at mean high water spring tide, 20 ft. 10 in. Length of quayage, 1,758 ft. The entrance gates of this dock have been removed, and it is used principally by native craft. It belongs to the Port Trust.

8. Carnac Basin, belonging to the Port Trust. Water area, 4.56 acres.

9. Government Basin. Area, 4,75 acres. Width of entrance, 60 ft.; depth on sill, 22 ft. 7 in.; depth in basin, 24 ft. 7 in. Lengths of walls, 385 ft.,104 ft., 452 ft. and 556 ft.

10. Ballard Pier. A deep-water tidal berth, formed by extension of wall on west side of Alexandra Dock Entrance Lock. Length, 1,500 ft. Largest steamers can lie alongside. Overseas passenger steamers ordinarily dock here. Length of mail berth, 800 ft.; depth of water, 45 ft. 10 in., mean high water spring tide. The Mole Station, across the quay, has a large reception and customs hall, foreign mail sorting office, etc.

CLASSIFICATION
Changed to
UNCLASSIFIED

~~CONFIDENTIAL~~

11. Pir Pao Oil Pier. Belonging to the Port Trust. Situated at head of Bombay harbor on Trombay Island. Length of pier-head berth, 570 ft.; depth of water at pier-head, 42 ft. 10 in. at mean high water spring tide. There are two pipe lines, 8 x 10 in. for discharge of kerosene and petrol in bulk, from the pier to bulk oil installations at Sewri.

12. Alexandra Dock Harbor Wall (no. 18, passenger berth), 1,692 ft. long, dredged to 27 ft. 8 in. Two extra repair berths are being established here.

At present, 50 cargo boats can be berthed at one time; in the dry season 700 to 1,500 tons of cargo can be unloaded from each ship in one day; in the monsoon season, an average of 600 tons, since high winds and rain make work impossible about 2 days a week.

Anchorage in the stream is estimated as sufficient for 75 ships at a time. Nevertheless, it was recently reported that there were more than 200 ships in the harbor, about half awaiting repairs and about half waiting to discharge cargo. Expansion of bunders and lighter facilities is suggested. However, during the monsoon (June to October) lighterage is next to impossible.

A Port Trust official stated that in early 1942 the average turn-around for ships berthed in the docks was 5.52 days, or 7.61 days if time for repairs was included. But confidential information in OSS files, as received by American representatives, indicates that "the average turn-around of all ships in Bombay is reported to approximate six weeks." (Companies doing repair work are listed in paragraph 32.)

Cranes.

Alexandra Dock. There is one 60-ton floating crane; 8 portable hydraulic 6-ton cranes, and 85 portable hydraulic 35-cwt. cranes. A 75-ton electric crane, which was used in the Howrah Bridge construction, is now being installed.

CLASSIFICATION
Changed to
UNCLASSIFIED

Prince's Dock. There is one 30-ton fixed crane; also one portable hydraulic 5-ton crane, and 54 portable hydraulic 30-cwt. cranes.

Victoria Dock. There is one 100-ton fixed crane; and also 57 portable hydraulic 30-cwt. cranes.

Ritchie Dock. There is one 15-ton steam portable crane.

Hughes Dock. There are one 5-ton and one 3-ton steam crane; and one 4-ton hand derrick crane.

Government Basin. There are three hydraulic 1½-ton cranes, one hydraulic 30-ton crane, and one hand 20-ton crane.

It has been estimated that the cranes in the Bombay docks worked on an average 1,000 hours a year or about 3 hours a day. One difficulty has been shortage of crews. The 80 cranemen at Alexandra Dock have recently been increased to 120.

An increase in the number of mobile cranes and railway cranes would greatly facilitate handling cargo and reduce the congestion at Bombay port. In August 1942, it was reported that one 20-ton crane had been secured, and one mobile Diesel electric crane had been diverted to Bombay from Madras. Twelve mobile cranes were on order from the United States of which eleven were ready to ship. Two 30-60 ton floating cranes were expected from the United States early in 1943.

Lighters, etc.

The following is a summary of lighter and tug equipment: 10 tugs; 6 water barges (3 privately owned); about 250 cargo lighters; 1 tractor. There are no fuel barges, garbage and ash lighters, or floating repair shops. Two hundred wooden barges of a total capacity of 40,000 tons were to be purchased or built in Bombay, as reported in August 1942.

Coal steamers must discharge in the stream a half-mile or more from the docks; the coal is carried in barges to the coal depot at Darukhana. It usually takes three or four days to discharge the cargo

CLASSIFICATION
Changed to
UNCLASSIFIED

~~CONFIDENTIAL~~

of a coal steamer. Steamers are bunkered at the docks, one bunkering taking about half a day.

Kerosene in bulk may be discharged at Alexandra Dock Harbor Wall and Pir Pao Oil Pier. Petrol may be discharged only at Pir Pao. Fuel oil may be discharged at Alexandra Dock Harbor Wall berths and in docks. A fuel line to Ballard Pier to bunker ships was undertaken early in 1941 but has not yet been completed. It is often necessary to bunker large ships in the stream at considerable cost in time and equipment. The Admiralty maintains an oil fueling barge and a fleet attendant oiler and also uses commercial tankers. As there is an acute shortage of tugs, the completion of the fuel oil line is very desirable.

Storage facilities, in Bombay city, other than those already described:

1. Coal. The storage depots are at Darukhana, east of Reay Road station. These are only open plots of ground.

2. Oil and Gasoline. Tank storage facilities in imperial gallons are reported to be as follows:

Motor spirit	- 11,838,000
Aviation spirit	- 149,000
Diesel oil	- 8,723,000
H.S.D. oil	- 586,000
Furnace oil	- 11,768,000
Kerosene	- 23,726,000

The tank installation for motor and aviation spirit, listed above as 11,838,000, is reported by a different source to be as follows:

Burmah-Shell Oil Storage and Distributing Co.	5,721,000
Standard Vacuum	2,700,000
Caltex (India) Ltd.	1,891,000
Indo-Burmah Petroleum Co.	962,000
Western India Oil Distributing Co.	1,500,000
Total	12,774,000

CLASSIFICATION
Changed to
UNCLASSIFIED

~~CONFIDENTIAL~~

It is proposed to use kerosene tanks for motor spirit, thus increasing storage by 30 to 40 percent.

3. Cotton. A depot, on the western side of the Mazagaon-Sewri Reclamation, covers an area of 127 acres. Its capacity is one million bales. It has an automatic sprinkler system.

4. Grain depot, covers an area of 80 acres, of which more than a million square-feet are covered sheds, all served by rail transport.

5. Depots for manganese ore, building materials, hay, straw, etc.

There are extensive storage sheds in Sewri (a north-eastern district of the city) which have direct communication with the docks.

The Port Trust controls 121.8 miles of railway which serve the docks. At present this has not been sufficient to avoid congestion of cargo on the quays and pressure on storage facilities, especially during the monsoon when practically all ships must come alongside. In 1941, 822,015 tons were handled by the Bombay Port Trust Railway. The Manager estimates that the maximum capacity is 1,050,000 tons.

It has been suggested, especially in view of the inadequacy of rolling stock, that trucks be used to a greater extent in moving freight away from the dock area.

An official committee has found extreme inadequacy of all facilities in Bombay port. The quickest way to improve these facilities is (1) to make it possible to discharge more cargo in the stream, by increasing the number of barges and lighters, mobile cranes, trucks and warehouses; and (2) to increase the use of existing facilities by finding more skilled and other workers and by better organization of labor. In 1938 dock workers received one rupee a day, and worked 15 to

CLASSIFICATION
Changed to
UNCLASSIFIED

CONFIDENTIAL

18 days a month. All work stopped on Sundays. Even now work usually stops at night due to lack of additional crews. In order to insure a stable labor supply under all conditions it has been suggested that air raid shelters and adequate food supplies be provided at ports, and that military battalions be organized.

A third way of securing better use of present facilities is to do away with many rules and restrictions of a commercial nature which may have been useful in normal times but which cause delays in discharging cargoes and in sailings. In other words, if the port were run on a war basis some difficulties would be removed.

Various plans for improving the port facilities have already been undertaken which will change some of the data given above. The Port Trust Chairman has already undertaken to provide two new repair berths along the harbor wall of Alexandra Dock; a number of cranes, etc., are on order; plans for increasing the water supply to the docks (a new 100,000 gallon tanker, a cut-off from the city water main, etc.) are under way; and numerous other plans are in process.

The Kathiawar Ports.

A fairly large amount of trade passes through the ports of the Indian States in Kathiawar. The more important of these ports and the states in which they lie are: Bedi (Nawanagar), Okha (Baroda), Porbandar (Porbandar), Navlakhi (Morvi), Veraval (Junagadh), and Bhavnagar (Bhavnagar).

The principal articles of foreign import are cotton, raw and manufactures; machinery and millwork; metals, chiefly brass and iron products; foods, chiefly sugar; grains; wood and timber; vehicles. The chief exports to foreign countries are seeds, raw wool, raw cotton, groundnut cake, groundnut oil, and ghi. These goods were sent chiefly to the United Kingdom, Egypt, and Belgium. In addition, there is a considerable amount of coastal trade. (See data given in paragraph 38).)

CLASSIFICATION
Changed to
UNCLASSIFIED

CONFIDENTIAL

Bedi, Port of Nawanagar.

The population of Nawanagar city is 55,056. Bedi is a small village three miles from Nawanagar.

In 1938-39 foreign imports at Bedi amounted to Rs. 8,885,000, and exports, Rs. 14,423,000. At the entrance, the harbor has a depth of seven fathoms; at berths, 13 ft. 6 in. There is a pier 1,000 ft. long and 250 ft. wide; total quayage, 4,500 ft. There is a dock with a depth of 20 ft. over the sill; width of gates, 60 ft. The port can take ships drawing up to 12 ft. of water. There is an anchorage one mile from shore, at Rozi (or Rojhi), for ships up to 40 ft. draft. There are ten travelling cranes: six 3-ton, two 5-ton, one 4-ton, one 10-ton. There is a derrick of 15 tons capacity. There is an ample supply of lighters and 17 godowns. Ships can load or unload both day and night. Nawanagar has a through rail connection with Bombay and Delhi.

Navlakhi, Port of Morvi.

Foreign imports at this port in 1938-39 were valued at Rs. 7,204,000; exports at Rs. 714,000. In 1940-41 imports were Rs. 5,079,000 and exports Rs. 10,217,000.

This is an all-weather tidal port. Steamers drawing 25 ft. can enter at high tide. Six steamers can lie at anchor in the stream, with firm anchorage; the depth is not less than six fathoms. There are two quays on opposite sides of the port and cargo can be loaded and unloaded on both sides of each. The wharf is 400 ft. long with nine wooden slopes. Cargo is discharged in the stream to lighters; lighters of a total capacity of 2,000 tons are available. There are 16 steel barges and 15 wooden barges of 1,500 tons capacity; two steam tugs of 200 and one of 250 towing capacity; and three motor launches. An average daily discharge per steamer of 500 tons general cargo or 800 tons bag cargo is possible. On the pier there are seven cranes: one

CLASSIFICATION
Changed to
UNCLASSIFIED

~~CONFIDENTIAL~~

12-ton, two 5-ton, one 4-ton, and three 3-ton. Two of the latter are run on metre gauge tracks. There are 34 warehouses, 21 cement with stone flooring with a total capacity of 20,000 to 22,000 tons. Sixty thousand square feet, floor area, of warehouses are available at Morvi. There is an electric power house at the port and all sheds and wharves have flood-lighting. Fresh water is provided from Dohinsara, by means of a water works and a 13-mile pipe line. Railroad sidings are along the wharves, jetties and godowns. There is a medical dispensary and an ample labor supply.

Okha, Baroda State.

Population, 4,660.

This port is on the extreme western tip of the Kathiawar peninsula at the mouth of the Gulf of Cutch, and is the terminus of the Kathiawar Mail (train) from Bombay. (There is also a small port at Dwarka, about 20 miles southeast.)

Foreign imports at Okha in 1938-39 amounted to Rs. 6,074,000; exports, Rs. 456,000. In 1940-41, imports were Rs. 7,643,000 and exports Rs. 2,342,000. Among the exports are salt, magnesium chloride, and cement.

The approach to the port is by the channel, which is buoyed to the east of Samiani Island. Depth at entrance is 20 ft. low water, ordinary spring tide; depth at pier is 30 ft; depth at moorings is 20 and 23 ft., at low water. There is a 400 ft. pier of reinforced concrete. One steamer can be berthed on each side of the pier and two at moorings, working into lighters. There are 20 barges with a total capacity of 1,700 tons, two motor boats for towing, and a twin-screw steam tug of 850 indicated horsepower, which is fitted with fire-extinguishing and salvage apparatus. There are two 2-ton steam cranes with 40-ft. radius on the pier. Bunker coal and oil are available in limited amounts; storage facilities at the port are reported as follows, (in Imperial gallons):

CLASSIFICATION
Changed to
UNCLASSIFIED

Motor spirit	- 1,492,000
Aviation spirit	- 71,000
Diesel oil	- 4,821,000
Furnace oil	- 3,988,000
Kerosene	- 9,350,000

Fresh water is piped to the pier. There are ample warehouses and railway sidings on the pier.

Porbandar, Port of Porbandar.

Population, 33,383.

This port received foreign imports in 1938-39 valued at Rs. 2,794,000 and exported goods valued at Rs. 5,253,000. In 1940-41, imports were Rs. 2,943,000 and exports Rs. 1,996,000.

Porbandar is a tidal port; at high tide sailing craft drawing 6 ft. can come alongside. The depth at the pier is 6 ft. at all tides, and the depth in the channel is about 12 ft. Vessels of 2,000 tons or over anchor in the open roadstead in 7 fathoms of water, about one and a half miles from shore. An anchorage for small sailing craft and seaplanes in about 3 fathoms of water is also about a mile and a half from shore. The quay is 400 yards long. There are 14 state-owned lighters with a total capacity of 300 to 350 tons, and 18 privately-owned sailing craft of 200 to 250 tons. There are four launches available for towing and general service: two motor-launches, one steam-launch, and one Diesel-engine launch. There is a 5-ton mobile steam crane, three 3-ton mobile steam cranes, and one 7-ton hand-crane. The railroad siding runs along the whole length of the quay.

Veraval, Port of Junagadh.

Population, 21,114.

In 1938-39 Veraval accounted for imports to the value of Rs. 4,203,000 and exports to the value of Rs. 10,632,000. In 1940-41 imports were Rs. 2,474,000 and exports were Rs. 876,000.

CLASSIFICATION
Changed to
UNCLASSIFIED
 ~~CONFIDENTIAL~~

The town is built around a small bay; the port is practically an open roadstead, but a 1,600 ft. breakwater protects small craft lying near the shore from the southwest monsoon.

This port is not open during the monsoon season from June to August. Steamers anchor about a mile off-shore, in 9 fathoms of water. There are ten 20-ton lighters owned by the government and ten of about the same size privately owned; four composite barges of 50 tons each, and two steel barges of 100 tons each; two steam launches; two Diesel-engine tugs. Entrance channels are maintained by a rock-cutting dredger.

There is a dry-dock 130 ft. long, 35 ft. wide at entrance; depth on sill at high water, ordinary spring tide, 11 ft; height of sill above bottom of dock, 5 ft. This dock is used as a wetdock during the open season; it has fixed gridiron to take vessesl 80 ft. long, 32 ft. wide.

The port has four quays (three basins), with 29 loading or unloading ramps, 10 of them with railroad sidings. There are eight cranes: one 20-ton and one 5-ton steam travelling crane, one 5-ton hand crane, two 3-ton fixed cranes, two 1½-ton electric travelling cranes, and one 1½-ton steam fixed crane. There are 51 masonry warehouses at the port, 26 of them served by railway sidings, (and many private warehouses available), and two transit sheds. The port is electrically lighted.

The maximum capacity of the port is estimated at 2,000 tons per day. The average before the war was 1,000 tons per day, 250,000 tons per annum. The railroad capacity is estimated at 1,000 tons per day.

In January 1937, according to Lloyd's, a new quay to the east of the present harbor was under construction, for the handling of dangerous goods; it was to be completed in May 1937.

~~CONFIDENTIAL~~

CLASSIFICATION
Changed to
UNCLASSIFIED

Bhavnagar, Port of Bhavnagar.

Population, 75,594.

In 1938-39, the foreign imports at Bhavnagar amounted to Rs. 5,095,000; exports, Rs. 6,606,000. In 1940-41 imports were Rs. 3,005,000 and exports Rs. 586,000. The chief export is cotton.

Bhavnagar is on a tidal creek which runs into the Bay of Cambay. The approach to the harbor is treacherous; at high tide ships drawing not more than 27 ft. can come alongside. Two steamers, not over 525 ft. in length, can be berthed at the same time. alongside a concrete jetty.

There are about 15 steel lighters, averaging 100 tons capacity. Also many country boats of about 50-ton capacity might be available. On the jetty there are five cranes of 1-ton and ½-ton capacity. The storage space is ample but poor. The government seems willing to fill in this area and build sheds.

There is a small dry-dock 200 ft. long and 50 ft. wide. (Lloyd's gives this as a slipway measuring 322 ft. extreme length, 156 ft. length of cradle; draft on keep blocks at highwater, ordinary spring tide, 5.0 forward, 14.9 aft; lifting power, 950.) There is a radio station. Fresh water is piped to the pier, which is electrically lighted.

The Kathiawar ports have been used less, instead of more, since the war. The total foreign trade of the above-named ports was Rs. 72,854,000, in 1938-39; Rs. 79,308,000 in 1939-40; Rs. 42,293, in 1940-41. Small ships could be unloaded and repaired in these ports, relieving congestion at Bombay and Karachi--especially since there is good metre gauge railway connection to north and east India making reloading unnecessary. The building of small ships, a well established industry along the Kathiawar and Bombay coasts, might well be encouraged.

In addition to the ports discussed, there are other small ports, as for example, those appearing in the schedule of service of the

CLASSIFICATION
Changed to
UNCLASSIFIED

Bombay Steam Navigation Company on its run from Bombay to Karachi (Mangrol and Cutch Mandvi, in addition to others already named). The former service runs once a week, the latter twice a week.

Beginning at the head of the Gulf of Combay and going around the Kathiawar Peninsula to the west, the following additional ports and anchorages exist:

Dholera. The port is connected with the town, 4 miles away, by a tram line. It is connected with the railway at Dhanduka, 18 miles away, by a road which has been recently improved. Value of imports and exports in 1937 was Rs. 590,000.

Sultanpur, a small port on the Shetrunji; the landing place is about a mile within the entrance of the river. Good well-water is obtainable there. Small vessels may anchor between the shoal and the shore in $2\frac{1}{2}$ or 3 fathoms of water.

Gogha. Population,3,100. Formerly this town had considerable trade in cotton; now the warehouse is in ruinous condition There is an anchorage in Gogha Roads in 6 fathoms of water; the holding ground is good. Sometimes the sea is so choppy that lighters can not be held alongside.

Mahuva Bandar. About one mile from Mahuva Bay on a creek which nearly dries at low water. The bandar has two or three small sheds and a customs-house. Mahuva lies 2.8 miles to the north.

Abusalia. There is an anchorage in 5 fathoms northwest of Salbet Island. The west channel to Salbet anchorage narrows to 500 yards.

Kathiawar Bandar (Port Albert Victor) port of Dongar. It is connected with the mainland by a 3-mile road built across marshland. The depth of the channel at low tide is 7 feet. No supplies are available.

CLASSIFICATION
Changed to
UNCLASSIFIED

Jafarabad Harbor, 7.5 miles west of Salbet. Depth at low water, 2 ft. at the bar, 4 to 6 ft. within it. Good anchorage in 7½ fathoms off the harbor.

Diu Harbor. Vessels can anchor in 3 to 4 fathoms of water one mile east of Gogha. Small vessels can enter the creek and anchor in 6 to 15 ft. of water. Water is available.

Mandar Bandar. Small craft can anchor.

Mangrol Bandar. Three or four small craft can anchor inside.

Navibandar. Anchorage in 5 fathoms, off the entrance to the river.

Dwarka. There is an anchorage in 11 to 12 fathoms, and a landing place at Rupen Bandar.

Salaya, at the head of Salaya Creek. Harbor depth not less than 5½ to 6 fathoms. Best anchorage lies outside the harbor in 5½ fathoms. Steam coasting vessels call here; there are no rail connections.

Mandvi, in Cutch. Population 26,000. Mandvi Creek is protected by the Albert Edward breakwater; craft of 9 to 10 ft. can enter at high water. There is a pier and pitched slope; boats can come alongside.

Mormugao, Port of Goa.

The only port of any importance in Western India south of Bombay is Mormugao, in Portuguese Goa. It lies on the left bank of the River Zuari, 230 miles from Bombay.

This port is the property of the West of India Portuguese Railway Company, but is leased to the M. & S.M. Railway as its western terminus. It thus has rail connection with Bombay, Madras and Calcutta, though not on a single gauge. The railway authorities work the port, but matters of customs, health, etc., are in charge of Portuguese authorities.

CLASSIFICATION
Changed to
UNCLASSIFIED

The principal imports are rice, sugar, petroleum, coal, hardware, and machinery. The principal exports are cotton, manganese ore, chrome ore, pig iron, groundnuts, cashew nuts, and seeds. This port is a distributing center for Mysore, Hyderabad, and the Bombay Deccan.

The port is open all year round. It has extensive anchorage comprising 99 acres of water, with a depth of 26 feet at low water. There is no bar. The harbor is protected from the southwest monsoon by a breakwater 1,700 ft. long. There is accommodation for five vessels along the quay wall, which runs 2,100 ft. at an angle of 73° to the breakwater. There are 731 ft. of new quay wall. The depth is 27 ft. at the entrance, 29 ft. in the dredged channel, 22 ft. at Nos. 1 and 2 berths; 25 ft. at No. 3 berth; 27 ft. at No. 4 berth; 30 ft. at No. 5 berth; and 28 ft. at No. 6 berth. There are 17 cranes on the quay, one of 30-ton capacity. Loading and unloading are done by the railway company; the trains run alongside the vessels and opposite large warehouses built on the quay. Coal bunkers are available. There is tank storage for 3,384,000 imperial gallons of kerosene. An average day's work of 10 hours is 1,000 tons of ore, or 750 tons of seeds and general cargo, or 500 tons of general cargo and iron work. The harbor is electrically lighted at night. Good water is piped to the quay; the supply is about 16 tons per hour but is scarce in April and May. There is a radio station.

Panjim (New Goa) situated across Mormugao Estuary, 5½ miles from Mormugao, also is a port, population 10,000. It imports piece goods, kerosene, and twist; exports salt, seeds, and coconuts. The anchorage has a depth of 4 to 5 fathoms. The depth at the entrance is 15 ft. and at the quays is 14 ft. Boats can lie alongside at all tides. Water is very scarce.

~~CONFIDENTIAL~~

CLASSIFICATION
Changed to
UNCLASSIFIED

Small Ports on the Bombay Coast.

North of Bombay, Daman (Portuguese), Surat on the Tapti River, and Cambay were once important ports in the days of small ships. These, as well as small towns on the coast south of Bombay, such as Rewas (i.e., Alibagh), Dharamtar, and Ratnagiri, are now fishing ports. There are small steamships, e.g. of the Coastal Line Steamship Company, the Ratnagar Steam Navigation Co., the Scindia Steam Navigation Co , and the Bombay Steam Navigation Co., which ply up and down the coast. Sometimes these afford better means of transportation than do the roads, the latter being difficult because of the many streams. The last-named steamship company has a daily service from Bombay to Jaigad, 111 miles south, stopping at Janjira (i.e. Murud), Shriwardhan, Harnai, and Dabhol; a daily service from Bombay to Dharamtar, stopping at Rewas. The Indian Co-operative Navigation and Trading Company has a daily service from Bombay to Panjim (New Goa), stopping at Ratnagiri, Jaitapur, Viziadrug (Vijaydurg), Devgad, Malvan, and Vengurla. Ratnagiri is an important source of labor supply for Bombay, and the workers usually come and go by boat.

Beginning with North Kanara, the southernmost district of Bombay province, and proceeding north, the following small ports appear.

Bhatkal. Population, 8,000. Coastal steamers call, and some trade is carried on. Anchorage at the mouth of the river is in 4 fathoms. Value of imports and exports in 1937 was Rs. 440,000.

Honawar. Population, 8,000. Coastal steamers call three times a week during the fine season, and considerable trade is carried on. Anchorage is in 5 fathoms. Value of imports and exports, 1937, was Rs. 2,830,000.

Kumpta. Population, 11,000. Chief commercial town in North Kanara.

CLASSIFICATION
Changed to
UNCLASSIFIED
CONFIDENTIAL

Tadri, on Tadri River. Small boats can go 12 miles up the river.

Sanikata had a trade valued at Rs. 2,020,000 in 1937.

Karwar, on southern shore of Sadashivgad Bay; population, 20,000. Anchorage in 4 fathoms, 400 to 600 yards from shore, or inside in 3 fathoms, north of the landing jetty. This is said to be the only safe harbor between Bombay and Narakal, except for Mormugao. Value of imports and exports in 1937 was Rs. 1,610,000.

Vengurla. Population, 18,500. Seaport of Belgaum District, with which it has good road connections. Coastal steamers stop daily. The value of trade in 1937 was Rs. 3,130,000.

Malvan. Coastal steamers stop daily. The value of trade in 1937 was Rs. 3,770,000.

Deogarh. Entrance to the harbor is 600 yards wide, but the depth is under 3 fathoms. Vessels call daily during the fine season, but carry chiefly passengers. There is a cart road to Kolhapur.

Viziadrug (Vijaydurg). The harbor, one of the safest on the coast, extends 1.5 miles by 1.3, with depths of 4 to 6 fathoms. The town is on Viziadrug River; vessels of less than 12 ft. draft may enter the river; those of 7 ft. draft can proceed as far as Vaghotan where there is a stone jetty. Value of trade in 1937 was Rs. 1,270,000.

Jaitapur. The town of Rajapur is 15 miles up the river but can not be reached by coasting vessels. Value of trade in 1937 was Rs. 2,530,000.

Ratnagiri. Population, 17,000. The town lies on the north side of the river entrance. There is no protection during the southwest monsoon; then the steam vessels stop at Kalbadevi Bay, to the north, from which there is a good road to Ratnagiri. The value of imports and exports in 1937 was Rs. 6,220,000.

CLASSIFICATION
Changed to
UNCLASSIFIED

~~CONFIDENTIAL~~

Jaigarh. Population 2,700. Scarcely more than a fishing village. There is a sheltered anchorage in 5 to 6 fathoms of water. Value of trade in 1937 was Rs. 1,270,000.

Dabhol. Population, 5,000. There is a small wharf and a new jetty 140 yds. long. Depth at jetty, 9 ft. An anchorage 200 to 400 yds. off the jetty is in 30 ft. of water. The value of trade in 1937 was Rs. 3,970,000.

Harnai. Population, 7,000. A fishing village.

Bankot. Formerly of considerable importance, now a small fishing village. Coasting steam vessels call daily in fine season. Discharge is made at the anchorage. The value of trade in 1937 was Rs. 2,840,000.

Janjira Harbor and Murud. Small stone pier. Ferries. Good road. Anchorage in 3½ fathoms at low tide.

Rewadanda. Anchorage in 18 to 24 ft. of water off the landing place. Value of trade in 1937 was Rs. 233,000.

Alibag. Population, 4,000. Anchorage for vessels of less than 9 ft. draft off the entrance to Alibag Creek. There is a European station here, and a magnetic observatory.

Bandra, 9 miles north of Bombay. Population 26,000. A port and a railway (B.B. & C.I.) station.

Bassein. Population, 10,000. The town has a good landing place, a stone pier, and a customs-house.

Daman, a Portuguese town. Population, 47,550. There is an anchorage in 5 fathoms in Daman Road. Vessels up to 500 tons sometimes moor in the river abreast the forts. This is an excellent place for repairs to small vessels; many 500-ton to 900-ton vessels have been built here.

Bilimora, population, 5000. Situated about 7 miles within the entrance of Gandevi River.

CLASSIFICATION
Changed to
UNCLASSIFIED

Bulsar. Population, 17,000. Large vessels must anchor about 8 miles from the coast. The town is on an estuary, 2.5 miles from the coast. In the river there is a depth of 7 to 9 ft. Value of trade in 1937 was Rs. 1.980,000.

Surat, population, 125,000 on the Tapti River, 14 miles from the mouth. There is an anchorage for large vessels in Surat Road. The Tapti River is tidal for 32 miles; small craft ascend to Surat or farther. This was once the chief commercial city in India; it is now the third largest in Bombay province. The value of imports and exports in 1937 was Rs. 4,050,000.

Broach, population, 50,000, on the north bank of the Narbada River, is one of the oldest seaports in India. As the river has silted up and as the city is on the main line of the B.B. & C.I., trade by sea has fallen off. Steamers anchor off the bar buoy and do not enter the river. The value of trade in 1937 was Rs. 10,780,000.

Tankari, town and port situated on the right bank of Dhadar River. Vessels may anchor in Tankari Road, 10 miles away, near the mouth of the river. This anchorage has a depth of 8 or 9 fathoms at low tide.

Cambay. Due to shoals, only those locally acquainted can navigate to Cambay, on the Mahi River. The depth in the channel lessens to 1.5 fathoms in low tide.

~~CONFIDENTIAL~~

CLASSIFICATION
Changed to
UNCLASSIFIED

37. Commercial Aviation.

Before the present war, the various trans-continental air services from Europe made their first Indian landing at Karachi, proceding thence to Delhi and Calcutta. As far as is known, these services are now suspended or substantially altered. Karachi, however, remains the main port of entry for planes operating under military direction arriving from the west.

The following air line with regularly scheduled services presumably still operates within the parts of India covered by this survey:

Tata Air Lines. Four times weekly in both directions between Karachi and Colombo, via Bhuj, Ahmadabad, Bombay, Hyderabad, Madras, Trichinopoly. Since 1937 this line has also conducted bi-weekly flights between Bombay and Delhi via Indore, Bhopal and Gwalior. These flights take place only during the fair season, October to April.

The line from Bombay to the Kathiawar States conducted by the Air Services of India, Ltd. has been suspended. Prior to the present war, arrangements were also being perfected for the development of air service to both China and Japan.

The principal aerodromes and landing fields of this area, as shown in a list of all Indian airfields prepared by the Department of Commerce, appear below. New fields which have been opened recently are known to A-2.

Abbreviations.

W/T - Wireless Telegraph
WI - Wind Indication
P.W. - Prevailing Wind
R. - Rains or Rainy Season
"Obstructions" indicate those requiring special caution.
There are no lighting facilities at any of the fields unless otherwise noted.

CLASSIFICATION
Changed to
UNCLASSIFIED
~~CONFIDENTIAL~~

/Abu Road (Sirohi)/* - 24° 29' N -- 72° 49' E. Altitude, 875 ft.
Location: 1½ miles from Abu Road station.
Landing Area: 500 x 500 yds.
Runways: (a) 500 yds.
(b) 400 yds.
Surface Conditions: Smooth earth. Hard. Runways not serviceable during rains.
Obstructions: SSE - factory chimney, 50 ft.**; hills, 5 miles N and W; Mount Abu Range, 1½ miles N.
Signals and Markings: White corner and boundary. WI on S edge.
Lighting: Nil.
Facilities: Fuel, repairs.
Transportation: RR station 1½ miles. Motor cars available.
Medical Facilities: Railway hospital, 1 mile.
Meteorology: P.W. - N, Nov. to Feb.; S, May to Sept.
R. - July to Sept. Dust storms - April to Sept.
Controlling Authority: Sirohi State.

Ahmadabad (Bombay) - 23° 04' N -- 72° 37' E. Altitude, 170 ft.
Location: East edge of cantonment.
Size: 600 x 600 yds.
Facilities: Radio.
Use: Army, permanent; customs.

Ahmadnagar - 19° 08' N -- 74° 46' E. Altitude, 2,200 ft.
Location: SE edge of cantonment.
Size: 200 x 500 yds.
Use: Army, non-permanent.

Aundh - 17° 32' N -- 74° 22' E. Altitude, 2,600 ft.
Location: 1 mile W of Aundh town.
Size: 1,200 x 900 yds.***
Surface Condition: Smooth, even.
Obstructions: None.
Signals and Markings: "Aundh" on roof of hangar.
Lighting: Nil.
Facilities: Fuel, repairs, water, 1 hangar.
Transportation: RR station, 12 miles. Road to Aundh adjacent.
Medical Facilities: Dispensary in town.
Controlling Authority: Aundh State.

---

*Names of places just outside the area covered by this survey are enclosed in square brackets.

**Notations of feet under "Obstructions" are elevations above field.

***Alternative report gives landing area as E-W, 400 yds.; N-S, 300 yds.

CLASSIFICATION
Changed to
UNCLASSIFIED

Baroda - 22° 20' N -- 73° 13' E. Altitude, 125 ft.
Location: 4½ miles N of Baroda.
Landing Area: 800 yds., circular diameter.
Runways: N-S, 800 x 50 yds.
NE-SW, 800 x 50 yds.
Surface Conditions: Hard soil, grass covered, level. (Soft after rain.)
Obstructions: None.
Signals and Markings: Boundary and circle, "Baroda". WI on E and W sides.
Lighting: Nil.
Facilities: Fuel,
Transportation: Road to Baroda adjoining.
Medical Facilities: First aid. General hospital, Baroda.
Meteorology: P.W. - summer and rainy season, S to SW; winter, N to NE. R. - June to Sept.
Controlling Authority: Aerodrome Office, Baroda.

Bellary - 15° 09' N -- 76° 57' E. Altitude, 1,523 ft.
Location: 1 mile NW of cantonment.
Size: 580 x 225 yds.
Facilities: Repairs.
Use: R.A.F.

Bhavnagar - 21° 46' N -- 72° 12' E. Altitude, 20 ft.
Location: 5½ miles from Bhavnagar station.
Landing Area: N-S, 600 yds.
WSW-ENE, 1,000 yds.
E-W, 750 yds.
NNW-SSE, 750 yds.
Runways: WSW-ENE, 600 x 50 yds.
Surface Conditions: Level, rolled earth. Soft spots.
Obstructions: None.
Signals and Markings: Standard markings. WI in center of eastern and western boundaries.
Facilities: Fuel, repairs, hangar - 50 x 70 ft.
Transportation: RR station, 5½ miles. Taxis to town.
Medical Facilities: First aid. Civil hospital in town.
Meteorology: P.W. - NW-SW. R. - June to Sept. when P.W. are W to SW. Dust storms - May.
Controlling Authority: State Engineer, Bhavnagar State.

Bhuj (Cutch State) - 23° 12' 45" N -- 69° 43' 10" E. Altitude, 400 ft.
Location: 2½ miles SSW of Bhuj town.
Landing Area: N-S, 800 yds.; E-W, 1,000 yds.
Runways: ENE-WSW, 730 x 50 yds.
Surface Conditions: Loamy. Soft after rain. Slope negligible.
Obstructions: NW - telephone wires, 23 ft.
NNE - hill, 430 ft. 2 miles distant.
Signals and Markings: Boundary and corner and circle. WI on NE side.
Lighting: Nil.

 CLASSIFICATION ~~CONFIDENTIAL~~
Changed to
UNCLASSIFIED

Bhuj (continued)

Facilities: Fuel, water, repairs, 1 hangar.
Transportation: RR station, 2 miles. Road adjacent.
Medical Facilities: State Hospital, 2 miles.
Meteorology: P.W. - winter, N to E; summer, south-westerly. R.- July to October. Dust storms - May to August.
Controlling Authority: State Engineer, Cutch State, Bhuj.

Bombay-Juhu (Bombay) - 19° 06' N -- 72° 75' E. Altitude, 9 ft.

Location: Juhu Island, 12 miles N of Bombay.
Landing Area: 800 x 800 yds.
Runways: E-W, 600 x 50 yds.
NNW-SSE, 600 x 50 yds.
Surface Conditions: Rough grass, level.
Obstructions: E - Posts, 40 ft.; S - wireless masts, 224 ft.; W - trees, 60 ft.; NE - 4 direction finding masts, 100 ft., about 2 miles distant.
Signals and Markings: Indian Aircraft Rules, 1937
Lighting: Boundary lights, obstruction lights, flying gap lights, illuminated "T" for wind velocity, floodlights, beacon.
Facilities: Fuel, repairs, hangar - 100 x 100 x 35 ft.
Transportation: 2 RR stations ½ mile and 1 mile from field giving service to Bombay, 12½ miles. Taxis.
Medical Facilities: First Aid. Hospitals in Bandra (2½ miles) and Bombay (12½ miles).
Controlling Authority: Aerodrome Officer, Juhu.

Chalisgaon - 20° 27' N -- 75° 02' E. Altitude, 1,100 ft.

Location: 0.3 miles W of railway station.
Size: 500 x 500 yds.
Use: R.A.F.

Deolali - 19° 54' N -- 73° 50' E. Altitude, 1,900 ft.

Location: 0.5 miles S of Deolali railway station E of railway.
Size: 400 x 650 yds.
Facilities: Repairs.
Use: R.A.F.

Dharampur (Dharampur State) - 20° 32' N -- 73° 13' E. Altitude, 300 ft.

Landing Area: N-S, 430 yds; E-W, 300 yds.
Surface Conditions: Smooth murram; grass. Slope negligible except eastern extension.
Obstructions: E - hill, 260 ft., ½ mile distant
S - hill, 300 ft., 1 mile distant
W - trees, 35 ft.
Signals and Markings: Boundary and corner marks and circle. WI in SW corner.
Lighting: Nil.
Facilities: Fuel, repairs.
Transportation: RR station, 18 miles. Roads to Bulsar and Dharampur.
Medical Facilities: Hospital, 1 mile distant.
Meteorology: P.W. - N. R. - June to October.
Controlling Authority: Dharampur State.

CLASSIFICATION
Changed to
UNCLASSIFIED

Dhrangadhra - 22° 57' N -- 71° 27' E. Altitude, 185 ft.
Landing Area: L-shaped. Two arms NE-SW and SE-NW each 840 x 348 yds. Diagonal E-W, 1,100 yds.
Surface Conditions: Hard soil, grass, level. (Caution in rainy season.)
Obstructions: None.
Signals and Markings: Boundary marks and circle. WI in re-entrant angle.
Lighting: Nil.
Facilities: Fuel.
Transportation: Road to Dhrangadhra adjoining field.
Medical Facilities: General hospital in town, 3½ miles.
Meteorology: P.W. - S-SW, summer and rainy season; N-NE during winter. R. - June to September.
Controlling Authority: Superintending Engineer, Dhrangadhra.

Falna Road - 25° 14' N -- 73° 14' E. Altitude, 1,050 ft.
Location: W of Falna Road railway station.
Size: 500 x 500 yds.

Goa (Portuguese India) - 15° 24' N -- 73° 47' E. Altitude, 205
Location: 3/4 mile S of Marmagoa Harbor.
Size: 574 x 552 x 521 x 569 yds.
Facilities: Fuel, hangars, radio.

Himatnagar (Dewan, Idar State) - 23° 36' N -- 72° 58' E.
Altitude, 200 ft.
Size: N-S, 680 yds.; E-W, 1,100 yds.; NW-SE, 1,20
yds.; NE-SW, 700 yds.
Use: Private.

Jalore (Jodhpur State) - 25° 20' 50" N -- 72° 37' 10" E.
Altitude, 525 ft.
Location: NE of Jalore.
Landing Area: 500 x 500 yds. NNE-SSW and ESE-W
650 yds.
Surface Conditions: Sandy, compact, rough. Sl
slope down to north.
Obstructions: SSW and W - high hills rising to
ft. above field, 1½ miles distant.
Signals and Markings: White corner marks and
WI on south side.
Lighting: Nil.
Facilities: Fuel, repairs, hangar.
Transportation: RR station, 1 mile.
Medical Facilities: Dispensary in Jalore, 1
Meteorology: P.W. - westerly. R. - June to
Controlling Authority: Public Works Departm
Jodhpur.

CLASSIFICATION CONFIDENTIAL
Changed to
UNCLASSIFIED

Dhrangadhra - 22° 57' N -- 71° 27' E. Altitude, 185 ft.
Landing Area: L-shaped. Two arms NE-SW and SE-NW each 840 x 348 yds. Diagonal E-W, 1,100 yds.
Surface Conditions: Hard soil, grass, level. (Caution in rainy season.)
Obstructions: None.
Signals and Markings: Boundary marks and circle. WI in re-entrant angle.
Lighting: Nil.
Facilities: Fuel.
Transportation: Road to Dhrangadhra adjoining field.
Medical Facilities: General hospital in town, 3½ miles.
Meteorology: P.W. - S-SW, summer and rainy season; N-NE during winter. R. - June to September.
Controlling Authority: Superintending Engineer, Dhrangadhra.

Falna Road - 25° 14' N -- 73° 14' E. Altitude, 1,050 ft.
Location: W of Falna Road railway station.
Size: 500 x 500 yds.

Goa (Portuguese India) - 15° 24' N -- 73° 47' E. Altitude, 205 ft.
Location: 3/4 mile S of Marmagoa Harbor.
Size: 574 x 552 x 521 x 569 yds.
Facilities: Fuel, hangars, radio.

Himatnagar (Dewan, Idar State) - 23° 36' N -- 72° 58' E. Altitude, 200 ft.
Size: N-S, 680 yds.; E-W, 1,100 yds.; NW-SE, 1,200 yds.; NE-SW, 700 yds.
Use: Private.

Jalore (Jodhpur State) - 25° 20' 50" N -- 72° 37' 10" E. Altitude, 525 ft.
Location: NE of Jalore.
Landing Area: 500 x 500 yds. NNE-SSW and ESE-WNW, 650 yds.
Surface Conditions: Sandy, compact, rough. Slight slope down to north.
Obstructions: SSW and W - high hills rising to 1,900 ft. above field, 1½ miles distant.
Signals and Markings: White corner marks and circle. WI on south side.
Lighting: Nil.
Facilities: Fuel, repairs, hangar.
Transportation: RR station, 1 mile.
Medical Facilities: Dispensary in Jalore, 1 mile.
Meteorology: P.W. - westerly. R. - June to September.
Controlling Authority: Public Works Department, Jodhpur.

CLASSIFICATION
Changed to
UNCLASSIFIED

Jamnagar (Nawanagar State) - 22° 27' N -- 70° 00' E. Altitude, 15 ft.

Landing Area: N-S, 730 yds.; E-W, 525 yds.; NE-SW, 800 yds.; NW-SE, 500 yds.
Surface Conditions: Hard murram, level.
Obstructions: None.
Signals and Markings: White corner and boundary mark and circle. WI in NNW and SE.
Lighting: Nil.
Facilities: Fuel, repairs, water, 1 hangar - 16 x 28 x 15 ft.
Transportation: RR station, 4 miles. Road adjoining field. Taxis.
Medical Facilities: State hospital, 4 miles.
Meteorology: P.W. - SW. R. - mid-June to October. Dust storms and strong wind - June and July.
Controlling Authority: Aerodrome Officer, Nawanagar State.

Jath (Jath State, Deccan) - 17° 04' N -- 75° 12' E. Altitude, 2,240 ft.

Landing Area: N-S, 375 yds.; NE-SW, 850 yds.; E-W, 725 yds.; SE-NW, 600 yds.
Surface Conditions: Firm and smooth. Slope negligible.
Obstructions: None.
Signals and Markings: Circle, boundary, corner marks. WI on E and S sides.
Lighting: Nil.
Facilities: Fuel, repairs.
Transportation: RR station, 17 miles. Road adjoining field.
Medical Facilities: State hospital, 1½ miles.
Meteorology: P.W. - SW, April to July; NE, November to March. R. - July to October.
Controlling Authority: Officer in Charge, Jath State.

Junagadh - 21° 30' N -- 70° 27' E. Altitude, 150 ft.

Landing Area: N-S, 530 yds.; E-W, 500 yds.
Surface Conditions: Grass for the most part. Slope negligible.
Obstructions: N and W - trees, 35 ft.; E and SW - trees, 35 ft.
Signals and Markings: Circle, corner and boundary marks. WI on S side.
Lighting: Nil.
Facilities: Fuel, repairs, water, 1 small hangar.
Transportation: RR station, 3 miles. Road adjacent. Taxis.
Medical Facilities: Hospital in Junagadh, 2½ miles.
Meteorology: P.W. - N, winter; SE, summer. R. - mid-June to mid-September.
Controlling Authority: Motor Department, Junagadh State.

Limbdi - 22° 33' 10" N -- 71° 51' 20" E. Altitude, 240 ft.

Location: ½ mile from Limbdi town.
Size: 495 x 517 yds.

CLASSIFICATION
Changed to
UNCLASSIFIED

/Pali (Jodhpur State)/ - 25° 48' N -- 73° 20' E. Altitude, 700 ft.
Location: NW of Pali railway station.
Landing Area: 500 x 500 yds., square. NE-SW and NW-SE, 650 yds.
Surface Conditions: Sandy clay. Negligible slope, unserviceable after rain.
Obstructions: Building and wires along RR.
Signals and Markings: Circle, corners. WI on S side.
Lighting: Nil.
Facilities: Nil.
Transportation: RR ½ mile. Metalled road adjacent.
Medical Facilities: Pali dispensary, 2½ miles.
Meteorology: P.W. - westerly. R. - June to September.
Controlling Authority: Public Works Department, Jodhpur.

Poona - 18° 33' N -- 73° 55' E. Altitude, 1,870 ft.
Location: 3 miles NE of Poona. E of Kirkee.
Size: 533 x 633 yds.
Facilities: Repairs.
Use: R.A.F.

Porbandar (Porbandar State) - 21° 38' N -- 69° 39' E. Altitude, 21 ft.
Location: 3½ miles from railway station.
Landing Area: 750 x 500 yds.
Surface Conditions: Hard clay, slightly liable to run. Grass, bushes. Generally level, slight slope E.
Obstructions: N - poles, 17 ft., 1,100 yds. RR; S - poles, 17 ft. 320 yds. (road); E-W - nil. W - buildings, bridges, 1½ miles.
Signals and Markings: Boundary mark. WI on NE, SE corners.
Lighting: Nil.
Facilities: Fuel, repairs, water, hangar.
Transportation: RR station, 3½ miles W. Road nearby. Buses.
Medical Facilities: State Medical Department, 3½ miles W to Porbandar town.
Meteorology: P.W. - NE in winter; SW in summer and monsoon. R. - July to September. Dust in May and June; some storms in winter.
Controlling Authority: State Engineer (civil) Porbandar State.

Rajkot (Kathiawar) - 22° 18' N -- 70° 49' E. Altitude, 430 ft.
Location: 2 miles from Rajkot station.
Landing Area: N-S, 580 yds.; E-W, 500 yds.
Surface Conditions: Murram, NW corner soft when wet. Slope negligible.
Obstructions: None.
Signals and Markings: Boundary and corner marks and circle. WI in SE corner.
Lighting: Nil.
Facilities: Fuel, repairs.
Transportation: RR station, 2 miles. Road adjacent.
Medical Facilities: West Hospital, 2 miles.
Meteorology: P.W. - SW in monsoon; NE in dry season. R. - mid-June to mid-October.
Controlling Authority: The Dewan, Rajkot State.

CLASSIFICATION
Changed to
UNCLASSIFIED
~~CONFIDENTIAL~~

Rajpipla (Gujarat State) - 21° 51' N -- 73° 31' E. Altitude, 190 ft.
Landing Area: N-S, 730 yds.; NE-SW, 750 yds.; E-W, 830 yds.; NW-SE, 880 yds.
Surface Conditions: Clay, slight slope downward toward W and SW.
Obstructions: N - trees, 40 ft.; NE - chimney, 50 ft.; E and SE - trees, 30 ft.; S - hills up to 1,100 ft., 3 miles.
Signals and Markings: Boundary marks and circle. WI on N and SE sides.
Lighting: Nil.
Facilities: Fuel, repairs.
Transportation: RR station, 2 miles. Road adjacent.
Medical Facilities: State hospital in town, 2 miles.
Meteorology: P.W. - SW, June to September; W, October to May. R. - June to September.
Controlling Authority: Executive Engineer, Rajpipla.

Ranagadh (Limbdi State) - 22° 46' N -- 72° 00' E. Altitude, 35 ft.
Landing Area: 495 x 495 yds.
Surface Conditions: Hard soil. Slope negligible.
Obstructions: None.
Signals and Markings: Corner and boundary markings and circle. WI in NW.
Lighting: Nil.
Facilities: Fuel, water.
Transportation: Road nearby. Cars.
Medical Facilities: Ranagadh dispensary, ½ mile.
Meteorology: P.W. - NE, winter; SW, summer. R. - mid-June to mid-October. Dust storms - May and June.
Controlling Authority: The Dewan, Limbdi State.

/Rohat/ - 25° 58' 00" N -- 73° 07' 30" E. Altitude, 630 ft.
Location: Beside road.
Size: 500 x 500 yds.
Facilities: Repairs.

Sanchore - 24° 44' 45" N -- 71° 46' 30" E. Altitude, 200 ft.
Location: S of Sanchore.
Size: 500 x 500 yds.
Facilities: Repairs.

/Sardar Samand/ - 25° 59' 12" N -- 73° 22' 12" E. Altitude, 765 ft.
Location: W of irrigation tank.
Size: 500 x 500 yds.

Sholapur - 17° 42' N -- 75° 58' E. Altitude, 1,470 ft.
Location: NE of railway, 2 miles E of Sholapur.
Size: 500 x 500 yds.
Facilities: Repairs.
Use: R.A.F.

CLASSIFICATION ~~CONFIDENTIAL~~
Changed to
UNCLASSIFIED

Sirohi - 24° 53' N -- 72° 51' E. Altitude, 1,000 ft.
Landing Area: N-S, 550 yds.; E-W, 800 yds.; ENE-WSW, 650 yds.; NW-SE, 850 yds.
Surface Conditions: Short grass. Slope negligible.
Obstructions: Hills 1 mile E extending NNE-SSE.
Signals and Markings: Standard corner and circle. WI on W corner.
Lighting: Nil.
Facilities: Fuel, repairs.
Transportation: RR station, 14 miles. Road adjoining. Cars.
Medical Facilities: Civil hospital close by.
Meteorology: P.W. - WSW. R. - July to September. Dust storms - April to July.
Controlling Authority: Police, Sirohi State.

Veraval (Junagadh State) - 20° 55' N -- 70° 21' E. Altitude, 40 ft.
Landing Area: N-S, 530 yds.; E-W, 530 yds.; NE-SW, 600 yds.
Surface Conditions: Smooth with sand or grass. Slope negligible.
Obstructions: S - rising ground and Palace, 100 ft.
Signals and Markings: Circle, corner, boundary marks. WI near re-entrant angle on W side.
Facilities: Fuel, water, 1 small hangar.
Transportation: RR station, 1 mile. Roads adjacent. Taxis.
Medical Facilities: Hospital, 1 mile.
Meteorology: P.W. - westerly during winter. R. - mid-June to mid-October.
Controlling Authority: Junagadh Durbar.

Wankaner - 22° 38' N -- 70° 57' E. Altitude, 270 ft.
Landing Area: T-shaped, each arm being 900 x 300 yds.
Surface Conditions: Vary from stony to clayey. Slope negligible.
Obstructions: N - hill, 13 ft.; E - road across SE corner of field; W - wire, 16 ft.
Signals and Markings: Boundary marks and circle. WI to N and E.
Facilities: Fuel, water.
Transportation: RR station ½ mile. Taxi in city.
Medical Facilities: State hospital in city, 2½ miles.
Meteorology: P.W. - SW, March to November; NE, December to February. R. - mid-June to October. Dust storms - May and June.
Controlling Authority: Dewar Saheb of Wankaner.

Note: The data in the above list has been compiled from such sources as are available in America, but the accuracy of details can not be guaranteed.

~~CONFIDENTIAL~~ CLASSIFICATION Changed to UNCLASSIFIED

38. Commerce.

The importance of commerce to the economic life of Western India is somewhat greater than in most other parts of the country. This results from two facts: (1) it is the center of the cotton industry, which has figured most largely in India's foreign trade; (2) it possesses the great port of Bombay, as well as the maritime Kathiawar States.

The following table shows the total number of workers in Western India and the numbers engaged in trade and transport, with the latter figures broken down to indicate--though inadequately--the numbers more directly interested in commerce.

	Bombay	Baroda	Western India States
Total Workers	10,842,000	1,210,475	1,127,000
Trade	559,554	67,065	122,303
Banks, Brokerage, etc.	36,533	2,074	12,541
Transport	219,176	15,863	38,532
By water	64,868	982	9,397

Summary figures for foreign sea-borne trade of private merchandise for Bombay province for selected (fiscal) years, in thousands of rupees, follow:

	Imports	Exports	Re-exports	Total
	Rs. '000's	Rs. '000's	Rs. '000's	Rs. '000's
1927-28	863,777	602,369	69,386	1,535,532
1930-31	569,380	530,214	32,321	1,131,915
1933-34	461,875	283,458	21,558	766,891
1936-37	493,292	395,457	48,557	937,306
1937-38	737,390	333,176	65,806	1,136,372
1938-39	601,406	315,949	46,230	963,585

Figures for coasting trade in the same years constituted the following amounts:

	Imports	Exports	Total
	Rs. '000's	Rs. '000's	Rs. '000's
1927-28	329,232	366,960	696,192
1930-31	249,020	287,800	536,820
1933-34	183,377	208,044	391,421
1936-37	195,900	241,400	437,300
1937-38	152,300	217,900	370,200
1938-39	144,300	207,600	351,900

CLASSIFICATION
Changed to
UNCLASSIFIED

The coastal trade is made up largely of Indian goods; the re-export figures, of the first table, are mostly for foreign goods shipped from Bombay to other Indian ports. The bulk of re-exports of India, 72 percent, passes through Bombay. It is seen that coastal shipping constitutes from a third to a fourth of the total trade of Bombay.

In 1930-31 the sea-borne imports of foreign merchandise of Bombay were greater than those of Bengal, and continued so through 1938-1939, the latest year for which we have figures. However, the exports of Bengal far exceeded those of Bombay, and so the foreign trade of Bombay was second to that of Bengal. But as Bombay's coastal trade was much greater than that of Bengal, the total trade figures show the ports of Bombay and Calcutta to be about equal.

The number of vessels in foreign trade which entered and cleared, with cargoes, at the port of Bombay in 1937-38 is shown below:

	Entered		Cleared	
	Sailing	Steam	Sailing	Steam
Number	81	594	75	432
Net Tonnage	8,136	3,203,804	7,272	2,499,344

As far as tonnage is concerned, this represents something more than one-third of vessels entered and about one-fourth of vessels cleared, in the foreign trade of India. Coastal shipping is not included.

Total figures for the port of Bombay in the same year are:

	Number	Tonnage
Steamers		
British	1,850	7,449,000
British Indian	3,662	1,179,000
Foreign	800	3,697,000
Total	6,312	12,325,000
Sailing Vessels	86,653	1,527,000
Grand Total	92,965	13,852,000

CLASSIFICATION
Changed to
UNCLASSIFIED

~~CONFIDENTIAL~~

For the Kathiawar ports, figures for sea-borne trade of foreign merchandise, in thousands of rupees, are:

	Imports Rs. 000's	Exports Rs. 000's	Re-exports Rs. 000's	Total Rs. 000's
1936-37	25,346	27,778	208	53,332
1937-38	32,445	29,112	876	62,433
1938-39	34,766	38,088	56	72,910
1939-40	48,523	30,785	741	80,049
1940-41	24,690	17,603	7	42,300

Coastal figures, and therefore totals, for the Kathiawar ports are not available. It will be seen that the foreign trade of these ports runs from 5 to 10 percent of that of Bombay.

There has been a striking decrease in the trade with Kathiawar since the outbreak of the war. The chief decline in imports is shown in sugar, cotton manufactures, and grain and flour. (There was an increase in the import of machinery and mill work.) The chief decline in exports is shown in oil seeds, raw cotton, and groundnut cake.

The various ports show great differences in their trade positions. Between 1938-1939 and 1940-1941, Okha's share of the imports increased from 17 percent to 31 percent and Nawanagar's decreased from 27 percent to 14 percent. Still greater changes are shown in export figures. The share of Morvi (through the port of Navlakhi) has risen from 2 percent to 58 percent and that of Okha from 1 percent to 13 percent. In the meantime the share of Nawanagar (through the port of Bedi) has fallen from 38 percent to 9 percent, that of Junagadh (via port of Veraval) from 28 percent to 5 percent, and that of Bhavnagar from 17 percent to 3 percent.

Exports, Bombay Province. The export of cotton, raw and manufactured, constitutes more than one-half of all exports from Bombay. Some history of the trade in cotton is given in paragraph 32. The

CLASSIFICATION
Changed to
UNCLASSIFIED

~~CONFIDENTIAL~~

export of raw cotton from Bombay to all foreign countries never fell below 2 million bales per annum, and was usually more than 2.5 million bales, during the decade preceding 1932. From 1932 on, the amount reached 2 million bales only in the single year, 1936. More than half the exports of Indian cotton are from Bombay.

Second in value among all foreign exports from Bombay, although ranking far below raw cotton, are cotton piecegoods, representing about two-thirds of the Indian total. This export has also fallen off in recent years. The same applies to cotton twist and yarn. In recent years, jute (raw and manufactured) has forged ahead of cotton as the leading Indian export commodity.

If the Bombay coastal trade in yarn and piecegoods is added, the value of this trade (as given in the table below) is much more than doubled.

The value of all cotton exports to foreign countries from Bombay is about Rs.182,000,000, out of a total of exports of Indian merchandise of Rs.322,000,000.

Next in importance to cotton in exports are oilseeds, especially linseed. The value of linseed sold abroad in 1938 was nearly 24 million rupees. Groundnuts came next, with 11,000,000 rupees. The total of oilseeds sold abroad amounted to 38,000,000 rupees. From one-fourth to one-third of India's oilseeds exports are sent from Bombay.

The export of hides and skins, both raw and dressed, brings in about 6 million rupees; raw skins account for the greater share.

Although the absolute value is small, half of the myrobalans, a third or more of the wheat flour, about one-fourth of the wool, and most of the teakwood, sandalwood oil, and rape seed exported from India are exported from Bombay.

CLASSIFICATION
Changed to
UNCLASSIFIED

The following table gives the exports of selected commodities from Bombay to foreign countries, and the total foreign exports of merchandise from Bombay and from British India:

	Quantity		Value, Rs.000's	
	1936	1938	1936	1938
Myrobalans (cwts.)	635,000	546,000	2,127	2,209
Wheat flour (tons)	7,758	20,190	1,227	3,125
Hides and skins (tons)	4,026	4,688	6,472	6,015
Manganese (tons)	92,832	60,679	2,037	1,425
Oilseeds (tons)	305,000	250,000	47,492	38,100
Castor	12,893	24,472	1,884	597
Groundnut	111,000	73,000	17,842	10,608
Linseed	167,000	160,000	24,472	23,806
Rape	30,000	20,000	4,166	2,736
Sesamum	4,000	4,000	834	872
Spices (cwts.)	27,000	46,000	1,190	1,647
Cotton				
Raw (tons)	362,000	257,000	208,016	137,572
Twist and yarn (lbs.)	9,998,000	29,687,000	4,749	14,694
Piecegoods (yds.)	53,317,000	132,727,000	12,943	29,643
Wool, raw (lbs.)	10,453,000	10,572,000	5,694	5,890
Total, Bombay			395,775	373,700
Total, British India			1,852,485	1,685,606

By taking figures for two years, one can see how great a change may take place in a short time, and be warned against taking any of these figures as necessarily typical.

Exports, Kathiawar Ports. By far the most valuable export from the Kathiawar ports before the war was seeds, representing 50 percent of the total. Groundnut cake and raw cotton together added another 22 percent. But in 1940-41, seeds fell to 7 percent and raw wool rose to 58 percent of total exports. The actual exports of raw wool increased only slightly. The major change was in the decline of most other exports.

Destination of Exports. In 1937-1938 raw cotton shipped from Bombay went to the following countries:

CLASSIFICATION
Changed to
UNCLASSIFIED

 ~~CONFIDENTIAL~~

Japan	718,000	bales
Belgium	93,000	"
China	85,000	"
United Kingdom	68,000	"
France	65,000	"
Italy	49,000	"
Germany	42,000	"
Indian ports	59,000	"

Holland, Czechoslovakia, Poland, and other countries, received smaller amounts. From Kathiawar most of the cotton went to Belgium, but the United Kingdom was, and is still more so today, the principal export market. The above figures, when compared with those of the previous year, show a large decline in exports of cotton to Japan, Italy, Belgium, and United Kingdom; there is an increase to France and China.

Cotton piece goods are shipped chiefly to Ceylon, Burma, and the Straits Settlements on the one hand, and to African territories on the other.

Linseed is shipped almost entirely to the United Kingdom; a large part of the castor and rape seeds also go to the United Kingdom. The largest takers of groundnuts are the Netherlands, France, the United Kingdom, and Germany (1938). The United States buys very little.

Myrobalans and wool are sold chiefly to the United States and United Kingdom; manganese to these and also to Japan. The United States is a market for spices. Wheat flour is shipped chiefly to Arabia, Burma, and Straits Settlements.

The United States is an important buyer of cashew nuts which are shipped to a large extent from Bombay and Mormugao, but figures are not available.

Imports, Bombay. In the import trade, cotton again takes first place, with a total of Rs.157,000,000 in 1938, more than half the Indian total, and a figure not much lower than that for cotton exports. It represents, however, a smaller fraction of the total imports of Bombay--i.e., about one-third. Of these cotton imports, the major share is of raw cotton, followed by piecegoods, then twist and yarn, then fents.

CLASSIFICATION
Changed to
UNCLASSIFIED

Next to cotton, machinery and millwork are the most important imports. Locomotives and other prime movers, electrical machinery, and textile machinery are the chief categories. About one-third of the imports to India come to Bombay.

In 1938, mineral oils ranked next in value of imports, amounting to nearly Rs.39,000,000. (In the table below, the year 1936 is omitted as being non-comparable for mineral oils. In that year for the last time figures for Burma, with its important oil fields, were included with those of India as domestic and not foreign.) Of the oils imported, kerosene represented the largest amount, motor spirit next, fuel oil and lubricating oils next.

The amount of rice imported into Bombay is almost 300,000 tons. It is practically all husked rice, its value only a little less than that of mineral oils. (For the same reason stated above, figures for 1936 are omitted from the table; Burma has been the chief source of rice.)

Bombay ranks next to Bengal in the import of metals and ores, accounting for somewhat less than one-third of the Indian total. These imports are principally metals, ore representing an insignificant amount. Iron and steel ranks first, its value in 1938 being Rs.54,455,000, out of a total of Rs. 106,955,000. Various brass products come next, with a value of Rs.10,418,000. Most of these imports are of semi-manufactured goods. For example, import of unwrought aluminum amounts to Rs.2,953 out of a total of aluminum imports of Rs.4,637,000; import of unwrought brass, Rs.20,335, out of a total of brass imports of Rs.10,418,000; import of unwrought copper, Rs.1,662,000 out of a total of copper imports of Rs.6,961,000.

Of iron and steel imported into India, the chief categories in order of importance are: (1) tubes, pipes, and fittings; (2) galvanized sheets and plates; (3) tinned sheets and plates; (4) sheets and

CLASSIFICATION
Changed to
UNCLASSIFIED

plates not galvanized or tinned; (5) hoops and strips; (6) steel bars; (7) nails, rivets, and washers.

Finally, mention should be made of coal-tar dyes, of which Bombay is the chief importer in India; and of coal, of which Bombay and Sind together take 98 percent of the quantity imported. Coal comes chiefly from Natal. A large amount of domestic coal enters into coastal shipping, reaching Bombay from Calcutta. In recent years, however, rail-borne coal has increased in proportion to sea-borne coal.

The following table lists the chief imports of private merchandise from foreign countries into Bombay and gives the total figures for Bombay and for British India:

	Quantity		Value (1,000's rupees)	
	1936	1938	1936	1938
Coal (tons)	29,736	26,681	508	557
Dyes - coal tar (lbs.)	12,346,000	9,098,000	18,400	19,000
Rice (tons)		297,372		37,605
Liquors (gals.)	1,638,000	1,780,000	7,437	7,862
Machinery and millwork			36,822	52,966
Metals and ores (tons)	117,000	73,000	26,312	26,790
Oils (gals.)		154,930,000		38,740
Cotton - raw (tons)	50,000	120,000	43,295	103,350
Twist and yarn (lbs.)	16,761	16,000	14,480	13,992
Piecegoods (yds.)	229,730,000	203,248,000	39,990	34,920
Fents (lbs.)	8,520,000	3,614,000	6,019	4,893
Woolen manufactures			9,884	9,895
Artificial silk (lbs.)	9,868,000	12,152,000	5,225	6,994
Motor cars (no.)	5,734	6,127	10,421	12,237
Total - Bombay			478,892	622,175
Total - British India			1,245,807	1,534,481

Imports, Kathiawar Ports. Imports into Kathiawar are usually greater than exports; nearly half of these imports normally pass on into British India.

CLASSIFICATION Changed to UNCLASSIFIED

Again, the largest item among imports was formerly cotton, chiefly manufactured, representing nearly 14 percent of total imports in 1938-39. In the same year, machinery and millwork accounted for 11.6 percent; metals and ores, 11.4 percent; grain, pulse, and flour, 8.7 percent; sugar, 8.3 percent; oils, 6.9 percent; and chemicals, 6.2 percent. In 1940-41, however, machinery and millwork had become the most valuable import (13.8 percent), sugar second (9.3 percent), and cotton amounted to less than 6 percent.

Source of Imports. The cotton imported into India, most of which enters through Bombay, is chiefly of the long-staple varieties, which are scanty in native production. It comes chiefly from Kenya and Egypt, also from the United States. Although cotton from the United States in 1938 was valued at Rs.18.5 millions (about one-sixth of the total), on the whole the effect of trade policy is to increase the share of the British Empire.

More than half of the machinery and millwork comes from the United Kingdom, its share in 1938-39 being 58.8 percent. Germany and the United States took second and third places in 1938, with 16.1 percent and 11.4 percent respectively. The United States does not figure greatly in the supply of locomotives or textile machinery. It does rank high as a source of mining machinery, however, and has a noticeable share of the market for electrical machinery, machine tools, and pumping machinery; it supplies almost all of the typewriters and a large share of the refrigerators.

Of mineral oils, the United States is the chief source of supply for lubricating oils; Iran for fuel oils; and Burma for kerosene and motor spirit, with Iran second (1938). The loss of Burma has put much greater weight on Iran for oil supplies and has consequently increased the importance of Bombay as the place of import.

CLASSIFICATION
Changed to
UNCLASSIFIED

Burma was also the principal source of rice, and its loss has been a severe blow to the food supplies of Bombay. As noted above, a "grow-more-food" campaign seeks to make up for the deficiency.

Most of the pig-iron imported into India comes from the United Kingdom, together with about half of all iron and steel goods. Belgium and Germany supplied from a fourth to a third of iron and steel goods, the United States only three or four percent. Brass also came chiefly from the United Kingdom and Germany. The United States is the principal source of copper, and one of the sources of zinc. Lead and tin were got from Burma and the Straits Settlements.

Coal tar dyes were imported chiefly from Germany.

Notice may be taken of certain other products in the supply of which the United States had a substantial share. The United States and Canada together furnished a number of motor cars slightly less than the United Kingdom and slightly less than one-third of the total; however, they furnished the major part of buses and vans. About six percent of the chemical imports came from the United States. Of implements and tools (not including machine tools and agricultural implements) the United States supplied 21 percent; and of hardware, nine percent. Two-thirds of the tobacco imported is from America, although a fair share of it is re-exported from the United Kingdom. All of these remarks apply to India as a whole; the share of Bombay in some of these imports is indicated in the table below.

As to the imports into Kathiawar, cotton piecegoods came chiefly from the United Kingdom, as did also iron and steel materials and machinery. Of the total imports in 1938-39, the United Kingdom furnished 35.5 percent; Burma, 18.9 percent (rice); Germany, 15.6 percent; Java, 7.7 percent (sugar). The share of the United States was 2.2 percent. In 1940-41, the share of the United Kingdom had fallen to 31.8 percent and that of the United States had risen to 11.4 percent.

(11053)

CLASSIFICATION [redacted]
Changed to
UNCLASSIFIED

Inasmuch as India's exports are largely raw materials, while her imports are semi-manufactured and manufactured goods, her trade was adversely affected by the depression of the 1930's, not merely in quantity but especially in value. On the whole, the prices of industrial products were much better sustained than were those of agricultural products. Thus while Bombay was receiving low prices for cotton, she was paying comparatively high prices for imported cloth, machinery, etc. Index numbers of Indian prices (base year, 1873) show a decrease in prices of exported articles from 216 in 1929, (117 in 1934) to 133 in 1937; the decrease in prices of imported articles was from 170 in 1929 (122 in 1934) to 144 in 1937. The same trend can be seen by comparing the index numbers of wholesale prices of India with those of more industrialized countries. On the 1929 base, wholesale prices in Bombay from 1932 to 1939 ranged from a low of 65.5 in 1934 to a high of 73.1 in 1937. Corresponding figures for the United Kingdom were 74.9 in 1932 to 95.2 in 1937. Since India had to exchange low-priced exports for high-priced imports, the difficulty of acquiring sufficient foreign exchange affected the trade situation, especially with non-sterling countries. Early in 1941 certain American dollar securities held by British in India were requisitioned by the government at current prices in order to secure dollar exchange.

It may be added that when prices rose as a result of the war, again India was in an unfavorable position since the prices of her imports rose more than the prices of her exports. The figures are as follows:

End-of-quarter price indexes; 1927-1928 = 100

	1939	1940-41		1941-42	
	July to Sept.	July-Sept.	Jan.-Mar.	July-Sept.	Jan.-Mar.
Exports	61	71	66	87	89
Imports	66	91	90	107	117

CLASSIFICATION
Changed to
UNCLASSIFIED
~~CONFIDENTIAL~~

Recent Developments. The outbreak of the war had adverse effects on India's--and Bombay's--foreign trade. By the end of 1941 all European markets were lost. Trade with Japan was virtually cut off in July 1941, and completely ended in December. Later, the Straits Settlements, Dutch East Indies, and Burma became inaccessible. Shipping space was short, and official restrictions were placed on imports and exports in many countries. On the other hand, there were certain incentives to enlarge trade, and that with the United States was substantially increased.

During 1940, exports fell considerably below those of 1939. However, in 1941 there was an increase in exports both by quantity and by value. It was the export of foodstuffs which accounted for the gain; exports of raw materials declined. The increase in imports in 1941-42 was due to an increase in prices; the quantity of imports actually declined slightly. There was a substantial increase in the import of motor vehicles for war use, and of raw cotton from Egypt, and a slight increase in the imports of oils. The imports of machinery and millwork, which had fallen from Rs.166 millions in 1939 to Rs.131 millions in 1940, rose in 1941 to Rs.135 millions. Electrical machinery and textiles machinery showed the greatest recovery. Some of the value increase was due, however, to a rise in prices. Exports of raw cotton from Bombay, which were 257,000 tons in 1938, were about 200,000 in the year prior to August 31, 1942. The recent policy of the government has tended to encourage growth of cotton at the expense of cotton manufacturing. Thus in 1939 the import duty on cloth from Lancashire was reduced, and the 1939-40 budget provided for a doubling of the import tax on raw cotton.

A significant trend is apparent in the decline of raw material exports and the increase in the export of manufactured and

CLASSIFICATION
Changed to
UNCLASSIFIED

semi-manufactured goods. The first world war gave a stimulus to industry in India; the present war is doing the same.

Exports and imports of military supplies on government account are omitted from the trade figures. Therefore all data are now incomplete and comparisons misleading.

Import licenses are now required for many commodities, while the import of some is entirely prohibited. Export licenses are required for commodities destined for countries outside the sterling area. In addition, remittances to the United States and Canada for support of relatives or for personal use is practically prohibited. Dollar balances were requisitioned in India in 1940, and in the same year all securities whose principal interest or dividends were payable in the United States had to be surrendered to the Reserve Bank. By these means India has been able to maintain a stable exchange position in spite of the enhanced purchases from the United States. Trade with the United States has increased in the face of import prohibitions and controls which have cut off some commodities.

The following figures, for trade of India with other parts of the world show significant effects of recent events.

Percentage share of total merchandise trade of India:

	United Kingdom	British Empire	United States	All Foreign
1919-20 1923-24 (Average)				
Imports	57.6	65.2	8.5	34.8
Exports	24.2	41.4	12.0	58.6
Total	39.5	52.3	10.4	47.7
1938-39				
Imports	30.5	58.1	6.4	41.9
Exports	34.3	53.6	8.4	46.4
Total	32.5	55.7	7.5	44.3
1939-40				
Imports	25.2	56.3	9.0	43.7
Exports	35.3	56.0	12.7	44.0
Total	30.9	56.0	11.1	44.0
1940-41				
Imports	22.9	57.2	17.2	42.8
Exports	32.9	60.7	16.1	39.3
Total	28.5	59.1	16.6	40.9

(11053)

CLASSIFICATION
Changed to
UNCLASSIFIED

Share of total merchandise trade of India, in crores of rupees:

	1938-39		1939-40		1940-41	
	Imports	Exports	Imports	Exports	Imports	Exports
United Kingdom	46	58	42	75	36	65
British Empire	88	90	93	119	90	121
Europe	28	32	20	24	5	7
United States	10	14	15	27	27	32
All Foreign	64	79	72	94	67	78

These figures are for the whole of India, but at present Bombay is the principal port of significance here.

The increased trade of Bombay and Mormugao with the United States is shown in thousands of rupees in the following data:

	1941		Jan. 1 to June 30, 1942	
	U.S. exports	U.S. imports	U.S. exports	U.S. imports
Bombay	181,702	50,003	476,642	87,396
Mormugao		335		950

The falling off of trade with the United Kingdom has been due to the shipping shortage, but it has been more than made up by the increase in trade with the rest of the Empire.

Among single countries, the United States now ranks second only to the United Kingdom in value of exports received from India, and third (after the United Kingdom and Burma) as a source of imports by India. Of exports from India to the United States in 1940-41, 79 percent consisted of jute raw and manufactured, hides and skins, lac, fruits and vegetables, raw cotton and raw wool. In exports from the United States to India the chief items were machinery and millwork, instruments, unmanufactured tobacco, chemicals, dyeing and tanning substances, paper and pasteboard, and raw cotton. Although these are all-India figures, the major part of the trade with the United States passes through the port of Bombay.

CLASSIFICATION ~~CONFIDENTIAL~~
Changed to
UNCLASSIFIED

39. Communications.

The communications system of Western India is a part of the national system and is described in the Survey of India, paragraph 39.

Throughout the Bombay province, Baroda, and the Western Indian States Agency, postal and telegraphic service is general. In Cutch the service is much less widespread. Of Portuguese India, Goa has its own telegraph service, but this has direct connection with the Indian system; the service of Diu and Daman is also direct with that of India.

Two maps are attached to this section showing the main telegraphic and telephonic services. The map of the telephonic lines seem substantially complete, but in addition to the main telegraphic lines shown, there are subsidiary lines which do not appear. The government of India's "Telegraph Map of India" does not appear to exist in America, and it is impossible to say what all the missing services are. It is known, however, that many points in Kathiawar State have telegraphic service.

The Posts and Telegraph Departments operate wireless stations at Ahmadabad (2), Bombay (2), and Poona (1). There is a direct radio-telephone connection between Bombay and England and cable service from Bombay to Europe.

~~CONFIDENTIAL~~

CLASSIFICATION
Changed to
UNCLASSIFIED

40. Finance.

Currency.

The currency in Bombay, Baroda, and Western India in general is like that of the rest of India. This currency also circulates in the Indian States, even when they already have their own currency. (This also applies to postage stamps.) Most Indian states no longer issue their own coins; when they do, these coins do not circulate outside the state.

There are two mints in India, at Bombay and at Calcutta. The former issues the major part of the coinage -- Rs. 273,240,000 as against Rs. 20,134,000 in 1941-42. Rupees are being coined only at Bombay; subsidiary coins are issued at both mints.

Government Finance.

The budget for Bombay province is inserted at the end of this section. During the past five years the regular budget has ranged from Rs.120,000,000 to Rs.135,000,000. The budget including debt heads and capital outlay is over a half-billion rupees. There was a deficit of Rs.3,500,000 in 1938-39. and of Rs.100,000 in 1939-40 but an estimated surplus of Rs.8,000,000 in 1940-41. The budget in 1942-43 will be at least Rs.150,000,000. According to the 1931 census, five provinces had larger populations than Bombay; their populations and budgets were as follows:

	Population (in thousands)	Revenue 1938-1939 Rs.000's.	Revenue per capita Rs.
Bengal	60,314	127,700	2.12
United Provinces	55,021	128,000	2.33
Madras	49,342	161,300	3.37
Bihar	36,340	52,400	1.44
Punjab	28,419	111,700	3.93
Bombay	20,858	124,500	5.10

Thus Bombay has a record indicating a relatively high degree of financial prosperity.

(11053)

CLASSIFICATION
Changed to
UNCLASSIFIED

[redacted]

Since the central government receives the major part of its revenue from customs duties and income taxes, the people of Bombay province make a substantial contribution. The central government also makes lump payments to the provincial governments. This payment to Bombay in 1940-41 was Rs.6,000,000. The principal source of provincial revenue is the land; second in importance is excise taxes, and third stamps.

Since land revenue is a very inelastic tax, and since, in addition, agriculture has been in a depressed state for some years, it is a great drawback to the province to have to depend chiefly upon this source for its revenue. The income tax, which is more elastic and productive, is reserved for the central government. The central government is committed to a distribution of up to 50 percent of the proceeds of this tax among the provinces; at present it distributes much less than one-half. It paid Rs.14,780,000 to Bombay province in 1941-42; Rs.8,320,000 the year before. (Only a very limited sort of income tax is permitted the provinces -- namely, a tax on agricultural incomes supplementary to the land revenue, or a concealed income tax on professions and occupations.) A $6\frac{1}{4}$ percent sales tax on cotton manufactures was introduced in 1938-39.

Bombay spends a relatively large amount on education. On the other hand, she spends a surprisingly small amount on the Department of Industries, considering her degree of industrialization, and this expenditure is, to a large extent, devoted to the encouragement of cottage industries. In 1933-34 the amount was Rs.300,000 in contrast with Rs.1,200,000 spent by Bengal and 1,500,000 spent by Madras. In the 1942-43 budget, an expenditure amounting to 3.3 percent for civil defense is provided. There are also expenditures for dearness allowances and for grants to assist cultivators to change to food crops.

Following the table below giving the provincial budget, the budget for Bombay city is given.

CLASSIFICATION Changed to UNCLASSIFIED

Estimated budget, ordinary revenue, of Bombay province, for the year 1941-1942:

	Revenue Rs.	
Chief Heads of Revenue		
Income Tax	8,920,000	
Land Revenue	33,320,000	
Excises	20,609,000	
Stamps	12,950,000	
Forests	4,125,000	
Registration	1,448,000	
Motor Vehicle Tax	4,274,000	
Other Taxes and Duties	19,100,000	
		104,746,000
Irrigation and other Works		3,794,000
Interest		6,778,000
Civil Administration		12,318,000
Civil Works		5,857,000
Miscellaneous and Extraordinary		2,172,000
		135,665,000

	Expenditures Rs.	
Collection of Taxes, etc.		17,475,000
Irrigation, etc.		5,369,000
Debt Service		11,829,000
Civil Administration		
General Administration	8,363,000	
Education	20,688,000	
Police	16,134,000	
Justice, Jails	8,377,000	
Medical, Health	9,076,000	
Ports and Pilotage	6,000	
Scientific Departments	108,000	
Agriculture	2,051,000	
Industries, Cooperation, Veterinary, etc.	3,663,000	
		68,461,000
Civil Works		13,559,000
Miscellaneous and Extraordinary		18,907,000
		135,600,000
Excess of Revenue		65,000

Capital Expenditure, not charged to Revenue:

	Rs.
Irrigation works, etc.	317,000
Public Health	79,000
Bombay Development Scheme	181,000
Civil Works	788,000
Commuted pensions	238,000
	1,603,000

Grand total of budget, including debt heads, Rs. 560,694,000

(11053)

CLASSIFICATION
Changed to
UNCLASSIFIED

~~CONFIDENTIAL~~

Budget for Bombay municipality 1937-1938 omitting balances:

Revenue		Expenditures	
Town duties	1,309,000	Administration & Collection	1,693,000
Tax on houses and lands	13,146,000	Public Safety	1,538,000
Wheel tax	1,404,000	Public Health	13,157,000
Taxes on trades	207,000	Public Instruction	3,542,000
Tolls	25,000	Contribution to City Improvement Trust	3,440,000
Water rate	7,539,000	Interest on loans	7,563,000
Conservancy	3,339,000	Other items	5,282,000
	26,970,000		36,221,000
Licenses (liquor,etc.)	149,000	Extraordinary and debt	159,935,000
Revenue from property,etc.	3,992,000		
Contributions	1,221,000		
Miscellaneous	720,000		
	33,051,000		
Extraordinary & debts	165,678,000		
	198,730,000		196,155,000

The City Improvement Trust, created in 1898 to improve the sanitation of the city and develop its residential areas, ceased in 1933, since when these activities are carried on by the Corporation (the municipal government). The Development Directorate, created in 1920, laid out a plan of public works including (1) provision of 10,000 one-room tenements; (2) reclamation of 1,277 acres in Back Bay and in the harbor; development of Salsette Island for residence and industry; (3) improvement of communications to suburban areas; (4) improvement of supply and transport of building materials. Difficulties have been encountered and only part of the program is being carried out. Nevertheless, a considerable amount of municipal development has taken place, paid for by loans and taxes. The city of Bombay has been spending about Rs. 3,000,000 on primary education in contrast with Rs.600,000 by Calcutta and Rs.400,000 by Madras.

The receipts of Baroda State in 1938-39 were Rs.22,154,000 and the expenditures Rs.24,106,000. The chief sources of revenue were (1) land revenue, Rs.7,657,000 (this represents a large decrease from

the preceding year, when the amount was Rs.12,759,000); (2) liquor excise, Rs.2,299,000; (3) opium, Rs.257,000: (4) railways, Rs.1,881,000; (5) interest, Rs.1,928,000; (6) tribute from other states, Rs.627,000.

The annual revenue of certain of the smaller Indian States is as follows: Bhavnagar, about Rs. 9,000,000; Junagadh, about Rs. 10,000,000; Nawanagar, about Rs.9,400,000; Rajkot,about Rs.1,404,000; Idar, about Rs.2,400,000; Kolhapur, about Rs.12,710,000; Janjira, about Rs.1,000,000.

Private Finance and Banking.

The shortage of investment capital in India has been due in some part to the inadequacy of the banking system. There have, in fact, been two systems: the indigenous and the European.

The indigenous system, which is said to represent 80 percent of the banking and credit work of India, embraces a great variety of bankers, from small village capitalists to wealthy family partnerships; frequently money-lenders are included as bankers. These bankers are not organized on western lines. Their chief functions are to lend money on security, accept deposits, and buy and sell hundis (inland trade bills).

In 1930 the Provincial Banking Enquiry Committee estimated the number of indigenous bankers, including money-lenders, in Bombay province as 20,000. They are known by various names, such as Banias, Mahajans, and Shroffs. In Bombay, there are the Marwaris and Multanis. In Baroda, as well as in Bombay province, these bankers are frequently Jains, and in Gujarat, a caste called Bohras. Muslims are seldom bankers since their religion forbids the taking of interest, though devices have been found for circumventing the prohibition.

In Bombay there are several well-organized associations of indigenous bankers: the Bombay Shroffs Association, the Marwari Chamber of Commerce, the Commission Agents Association, and the Multani Bankers'

~~CONFIDENTIAL~~
CLASSIFICATION
Changed to
UNCLASSIFIED

Association.

A great deal of the inland trade of India is financed by hundis, a very old form of credit instrument resembling a bill of exchange. Shroffs discount hundis, and in Bombay the Multani Shroffs are similar to bill brokers; it has been said that confidence in their business acumen is so great that when they refuse to discount a hundi it is taken as a danger signal in the whole market.

According to the Central Banking Enquiry Committee (1931) the following rates of interest were paid on deposits in Bombay:

Shroffs current account, busy season	4 to 6 percent
Shroffs current account, slack season	3 to 4 percent
Call money in Multani Bazaar	3 to 6 percent
Bombay and Ahmadabad Shroffs' loans among themselves	4½ to 6 percent

The rate charged on advances, for internal trade and other purposes, was 6 to 12 percent.

The "hundi rate" may mean the official rate of the Imperial Bank, at which it will discount or rediscount first class 61 day bills, or it may mean the bazaar rate for discounting traders' bills. The former is seldom changed, and was 3½ percent or 3 percent from 1934 to 1942. The bazaar rate has been, interestingly enough, usually lower in Bombay than in Calcutta. Recently this has ceased to be true. The rate varied in Bombay from 2 5/8 percent to 6 3/4 percent between 1934 and 1939. In 1941-1942 it ranged from 4 1/2 percent to 6 3/4 percent.

In the villages the rates of interest frequently reach extremely high levels. Usually the security is quite inadequate--Indian peasants have very little which is worth taking as security--and the peasant is often necessitous. Rates of several hundred percent have been found. However, from 9 percent to 24 percent is usual.

Shroffs play an important role in financing crops, acting as grain dealers, commission agents, and the like, and in advancing loans to cottage industries. Large bankers also lend money in the form of

 CLASSIFICATION ~~CONFIDENTIAL~~ Changed to UNCLASSIFIED

deposits made to the credit of the industries; this is particularly prevalent in the Ahmadabad cotton mills where the bankers assume the position of managing agents.

Mention should be made of another source of capital which is of great importance to the cotton mills of Ahmadabad, namely, deposits made by the public (similar to time deposits in a bank). This method has become less popular in Bombay in recent years due to loss of confidence, but of 56 mills in Ahmadabad in 1930, 39 percent of the capital was secured by such deposits, compared with 32 percent secured by share capital and 28 percent from managing agents and banks.

Bombay is the focus for Indian capital; it has been estimated that 96 percent of investment is Indian-owned. The total of paid-up capital in joint-stock companies of Bombay province in 1935-36 was about Rs. 1 billion, representing approximately one-third of that of India. (British-owned capital centers in Calcutta; Bengal has about 44 percent of joint-stock capital investments of India).

The European system of banks consists of the Reserve Bank of India, the Imperial Bank of India, the exchange banks and the joint stock banks, all organized on western lines.

The Bombay Presidency Bank amalgamated with the Bengal and Madras Presidency Banks to form the Imperial Bank. It has about 20 branches in Western India.

The exchange banks have head offices abroad, frequently in London. The Indian branches engage in the financing of foreign trade, using both foreign (British) and Indian money. Since a substantial part of India's foreign trade is through Bombay, most of these banks have offices there.

Joint stock banks are of increasing importance in India. The largest of these, the Central Bank of India (capital, Rs.16,800,000; deposits, Rs.324,900,000) is in Bombay.

CLASSIFICATION
Changed to
UNCLASSIFIED

CONFIDENTIAL

Industrial banking has had very little success in India. Some of the joint-stock banks mix commercial and industrial banking, a practice usually frowned upon in the west. In February 1942, a new bank with an authorized capital of Rs.20,000,000 was launched by the rulers of Nawanagar and other Kathiawar states to exploit the industrial resources of the Indian States.

In addition to the above-named, there are the Bombay central banks and the provincial bank for the cooperative societies. Urban credit societies have made considerable progress in Bombay province, there being 741 of them in 1941. In 1938 there were 121 urban banks (to serve the needs of cooperative societies) with a working capital of Rs.46,328,028, most of them fairly successful. Bombay is outstanding for this sort of people's bank. There are also 17 land mortgage societies in the province, and a provincial land mortgage bank was established in 1935.

The bank rate, formerly fixed by the Imperial Bank, is now fixed by the Reserve Bank. The rate in June 1942, was 3 percent. The government could borrow, long term, at 3 percent.

In June 1942, the call money rate in Bombay was $\frac{1}{4}$ percent; three-month bill rate was $\frac{1}{2}$ percent to 1 percent, and six-month rate was 3/4 percent to $1\frac{1}{2}$ percent in 1941. The exchange rates on London in June 1942, were:

Telegraphic transfers	1 s. 5 31/32 d.
Demand bills	1 s. 5 31/32 d.
Three-months bills	1 s. 6 9/32 d.

The telegraphic transfer rate on New York was Rs.$332\frac{1}{4}$ to $100.

Clearing house returns for the Bombay clearing house were Rs.8,351,600,000 in the year 1939, Rs.10,486,000,000 in 1941-42. Before the war, the Calcutta clearing house has always transacted more business than the Bombay house, but the situation has been reversed in the past few months. (The indigenous banks are not members of the clearing house.)

CLASSIFICATION
Changed to
UNCLASSIFIED

~~CONFIDENTIAL~~

Stock Exchanges. The Share and Stockbrokers' Association is the main stock exchange in Bombay; it is more than fifty years old. In 1938 a second exchange, the Indian Stock Exchange, Limited, was formed. There are about 475 stock brokers in Bombay. There is also a Bullion Exchange in Bombay.

Of the shares listed on the Stock Exchange, very few have a par value of less than Rs.500. A par value of Rs.1000 is usual. This makes purchase by small investors impossible. Recently a tendency to break up shares has developed; the result will be the tapping of capital resources so far inaccessible.

On the base of August 1939, the price index for cotton mill shares on the Bombay Stock Exchange was 192, and the indexes for other shares had also risen.

In the spring of 1941, on the receipt of adverse war news, the Exchange suffered a series of reverses. There was some rioting in Bombay and Ahmadabad, and the Exchange remained closed several days. In June prices began to rise and speculators were dominant. In February 1942, minimum prices were placed on stocks, but these were removed in April because they were not being observed. For example, Lata Deferred sold for Rs.1100 although the minimum price set officially was Rs.1500 (on Sept. 12 the price had been Rs.2067). The Stock Exchange has continued quiet and dull.

Financial Policy. With the outbreak of the war, India began to accumulate sterling balances with the Reserve Bank, due to the shipment of goods to England on the account of the British government. The government of India adopted the policy of using these balances to repatriate its sterling debt. By 1943 it is anticipated that the last of the great issues will have been repaid and British investments in India reduced to commercial proportions. The sterling debt of the government of India was £376,000,000 in March 1936. In January 1943, it

CLASSIFICATION
Changed to
UNCLASSIFIED

will be £97,000,000. The interest charges in 1933-34 were £13,000,000; in 1943-44 they will be £2,750,000.

In general, cheap money has characterized India in the war years; some reasons for this are that the accretions of sterling led to expanding cash resources, the bank rate was maintained at 3 percent, there was a temporary set-back to agriculture. Gilt edged securities remained steady, with a consistent demand for long-term issues. Figures for money in circulation show a substantial amount of hoarding, but this did not cause a banking crisis. Hoarding seemed to be less in 1941 than in 1940. Probably the growing uncertainity in 1942 is causing its increase again.

CLASSIFICATION
Changed to
UNCLASSIFIED
by authority of
J.C. Satterthwaite DRN
By HT
Date 9/29/52